NEWS • FCC • DX • MARS • QRP • SAR • CONTESTS • FM • QCWA • QSLs

# WORLDRADIO

Year 30, Issue 3 www.wr6wr.com September 2000 • $1.50

## ARRL volunteers find, fix "the ditter"

ARRL staffers were greeted the morning of 24 July with reports of a continuous string of CW dits near 14.008 MHz — heard throughout North America over the preceding weekend. Initial reports gave conflicting beam headings of the offending signal, dubbed "the ditter." But when FCC staffer John Reiser, WQ4L, called ARRL to report his observations, things started to happen.

Reiser facilitated an FCC DF trace to the San Diego area. The ARRL San Diego Section leadership was notified, and Section Manager Tuck Miller, NZ6T, coordinated local Hams in a close-range DF effort. San Diego section Official Observer Coordinator Bill Sallee, K6TWO, took several field readings. At one point, when he'd narrowed the location to within two miles, the signal abruptly disappeared. The ARRL Monitoring System also was alerted. It was confirmed that this was a normal CW signal, not a "woodpecker"-type intruder.

Dialing around the bottom edge of 20 Meters early on 26 July, IARU Region 2 Monitoring System Coordinator Martin Potter, VE3OAT, heard the ditter once again, this time near 14.026 MHz. Potter determined that the signal had an identical period and beam heading as the one heard earlier. He notified ARRL Headquarters, and the San Diego Hams picked up where they'd left off.

Sallee's field strength readings drew him closer and closer to the coast, where the heading reversed. Sallee reports that he ultimately found the apparent source in the oceanfront community of La Jolla. He says the woman who answered the door said her husband was a Ham and allowed Sallee to take a look at the station. Sure enough, a stuck dit paddle was keying a powered, unattended rig, which Sallee disabled.

Sallee theorizes that heating and cooling within the Ham's uninsulated shack and a combination of corrosion in the keyer paddle's pivot mechanism and close dit contact spacing contributed to the contact's migrating to a closed position. He said the Ham later told him that he'd been operating on 14.007.5 MHz on 21 July but did not return to the shack until Monday afternoon. "He remembers listening to a CW contact on 14.026 but did not transmit," Sallee said. "He then left the shack unaware that by leaving the rig on, he would fall victim to unattended transmission when the moisture and temperatures began to change."

Sallee says the Ham, whom he did not identify, "was most embarrassed."

"I really felt sorry for him and assured him that public hangings were no longer in vogue," Sallee said. "He said he had learned a valuable lesson about disabling a rig that will be unattended." — *N4QX, ARRL Letter*

## NCVEC advances revised Morse testing standards

The National Conference of Volunteer Examiner Coordinators has voted to set up revised standards for the administration of Morse code examinations in the U.S. The move at the NCVEC's 21 July meeting in Gettysburg, Pennsylvania, comes in the wake of the FCC's action to establish 5 wpm as the sole Amateur Radio Morse code requirement.

Under the revised standards, examinees would have to show 25 character-count solid copy on their test sheets or successfully answer seven out of 10 questions of a fill-in-the-blank quiz on the sent text. The plan would bar the use of multiple choice tests for Morse code testing.

Morse examinations would specify use of the Farnsworth method, where characters are sent faster than the overall speed and additional spaces added between characters, words and sentences. Farnsworth "character speed" would be in the range of 13 to 15 wpm at an audio pitch of between 700 and 1000 Hz. Standard 5 wpm tests with 5 wpm character speed could be administered only as a special accommodation.

The new Morse testing standards are to be in effect by next 01 July but VECs may implement them sooner. — *ARRL Letter*

## 2000 ARRL/TAPR digital conference

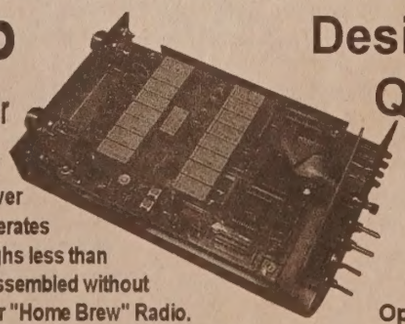
The 19th Annual ARRL and TAPR Digital Communications Conference will be 22-24 September in Orlando, Florida — just minutes from the Orlando International Airport and not far from area attractions and vacation spots such as Disney World, Universal Studios, and Sea World.

The ARRL and TAPR Conference is an international forum for radio amateurs in digital communications, networking, and related technologies to meet, publish their work, and present new ideas and techniques for discussion. The DCC is aimed at digitally oriented amateurs at all experience levels. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications. Chairing this year's event is Steve Stroh, N8GNJ, recently named as *CQ* magazine's digital editor.

Beginning, intermediate, and advanced presentations on selected topics in digital communications will be offered. Topics will include APRS, Satellite Communications, TCP/IP, Digital Radio, Spread Spectrum and other introductory subjects. A symposium and a seminar will be held to allow those with additional time and interest to make the most of the Conference.

Complete information and a registration form are available from Tucson Amateur Packet Radio, 940-383-0000; fax 940-566-2544; e-mail: tapr@tapr.org. — *ARRL Letter*


Z-11 QRP
Automatic Antenna Tuner



Designed Just For QRP Operation!

The Z-11 consumes ZERO power once tuned! Fully portable, operates from two 9 Volt batteries. Weighs less than 1 pound. Also available fully assembled without enclosure for mounting in your "Home Brew" Radio.

Microprocessor Controlled
Switched "L" Network
.1 to 30 Watts
1.8 to 30 MHz
Optional BALUN For Long Wires

Kit: $119
Kit with Enclosures: $145
Assembled & Tested: $179
Assembled w/o Enclosures: $149
BALUN Kit: $25 Assembled: $30

LDG Electronics, Inc.
1445 Parran Rd.
St. Leonard, MD 20685
Toll Free Sales: 877-890-3003
Info: 410-586-2177 Fax: 410-586-8475

Secure Web Ordering:
www.ldgelectronics.com

LDG




To subscribe call: 1-877-472-8643

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

# On the cover:

Speakers at the Hamvention DX and Contesting forums;

1. If you were one of the 26,600 to work Bhutan, you had Don Greenbaum, N1DG, and others to thank.

2. Getting lots of frequent flier miles lately is Martin Atherton, G3ZAY, who was also at the Visalia DX Convention. IOTA buffs appreciated his information.

3. While those out on the rocks and reefs get the glory (and green faces from the raging seas), many are working "behind the scenes." Among them is "pilot" William Avery, Jr., K6GNX.

4. Glen Johnson, WØGJ, narrated a slide show on A52A.

5. Giving some insight into the exotic countries of Nepal, Laos and Thailand was college professor Charles Harpole, K4VUD.

6. Pat Barkey, N9RV, delivered a talk on "Contest Success" giving away the secrets that a lot of others were trying to keep to themselves.

7. Another adventurer, in a place that will never be confused with Disneyland, was Bernie McClenny, W3UR, East Timor.

8. Moderator of the Contesting forum was Doug Grant, K1DG.

9. If medals were awarded for DXpeditions, Wayne Mills, N7NG, would have a chestfull. The new country of Chesterfield Island was his topic this year.

Also, in the first "D" of Worldradio: Paul Young, K1XM; the second "D": Mats Persson, SM5PKK; and the "O": Bob Allphin, K4UUE.

For the whole story on these forums see Armond's articles on page 20.


# WORLDRADIO

**September 2000 Year 30, Issue 3**


## Features


A civilized DXpedition — 6

The Radiosport Olympics — 11

The Big Ride — 16

Contesting and DX forums — 20


## Departments


65 — Advertisers' Index
56 — Aerials
8 — Amateur Radio Call Signs
24 — Awards
58 — Contest Chart
48 — County Hunter
31 — DX Prediction
28 — DX World
4 — Editor's Log
36 — FM, Repeaters & VHF
59 — Hamfests
45 — Inside Amateur Radio
25 — Letters to the Editor
46 — MARS
64 — MART Classifieds
61 — New Products
2 — NEWSFRONT
41 — Old-time Radio
54 — Propagation
44 — QCWA
52 — QRP
34 — QSL Managers
8 — Rules & Regs
42 — SAR Communications
22 — Silent Keys
22 — Special Events
26 — Station Appearance
9 — Subscription *Worldradio*
50 — Traffic
63 — VE Exams
39 — Visit Your Local Radio Club
35 — The Youth Forum


*Next month: 10-10 International News, Computers & Basic Stuff, HF Mobile, Heil on Sound, Positively CW, Wires & Pliers and With the Handi-Hams.*


*Published monthly by* **Worldradio**, *Inc., 2120 28th St., Sacramento, CA 95818 USA; 916/457-3655. Subscription Department:* **Worldradio**, *2224 Beaumont St., Ste. D, Sacramento, CA 95815; 877/472-8643. Periodicals postage paid at Sacramento, CA & additional offices.* ***POSTMASTER:*** *Send address changes to* **Worldradio, Inc.**, *P.O. Box 189490, Sacramento, CA 95818 USA.* **Worldradio** *(USPS 947000) is an international conversation. You're invited to participate. Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality to this avocation. As readers, you are participants in an alliance of active radio amateurs concerned with reality, using radio as a communications tool to develop the skill, quality and full potential of Amateur Radio. We emphasize the positive aspects of this great activity, and desire your contributions dealing with dramatic, personal and humanitarian uses of Amateur Radio. Articles for consideration may be submitted through the U.S. Postal Service or e-mail to articles@wr6wr.com.* **Worldradio** *is an independent magazine not affiliated with any other firm, group or organization. Permission is hereby granted to non-profit Amateur Radio club newsletters to reprint our articles with appropriate source credit. Any other use without written permission is a violation of copyright laws and violators will be prosecuted. If there is something useful, we wish to share it.* **SUBSCRIPTION RATES:** *$14.79* one year; $27.79* two years; $40.79* three years; $186.79* Life; *$10 extra per year for surface mail delivery to non-U.S. ZIPs. Please remit international postal money order. IRCs will be accepted. Club call: WR6WR. Visit* **Worldradio** *on the Web at www.wr6wr.com.* **STAFF:** *Publisher — Armond Noble, N6WR; Associate Publisher — Glen Rudesill, W6RWR; Editor — Rick McCusker, WF6O; Associate Editor — Norm Brooks, K6FO; Advertising Director — Helen Noble; Advertising Manager — Brenda Evans; Graphics Director/Advertising — Dianne Dunning; Graphics/Layout/Web — Ashley Guy, W6GUY; Circulation Manager — Marcia Watson; Proofreader/comma placement — Krystle Perigan; Administration Assistant — Karyn Allen; All-around Assistant — Clayton Guy, K6GUY*

# Where I stand on code and whiners!

Anytime there is a large gathering of individuals, there are usually a few that stand just a little taller, are proud of their accomplishments and are an influence to those around them. Their list of accomplishments is long, indeed — but at or near the top is the decision to come aboard as Lifetime subscribers to ***Worldradio***. After all, this is the best darn magazine for Amateur Radio operators, and they recognize that.

Our latest Lifetime subscribers are:

- **Allen Ellery, KU4AZ**
  **Colonial Heights, VA**
- **J.D. Creel, WB4AWM**
  **Valley Head, AL**
- **Charles Neill, K4XG**
  **College Grove, TN**
- **Tom Boyd, ARØLX**
  **Farmington, MO**
- **Timothy Durkin, K6TIM**
  **Happy Jack, AZ**
- **John Orton, WA6BOB**
  **Chatsworth, CA**
- **Diana Bingham, KD6ACQ**
  **Riverside, CA**
- **Peter Vekinis, KC1QF**
  **(and VE3PPV, LX1QF)**
  **Santa Clara, CA**
- **John Lynn, KLØCY**
  **Anchorage, AK**

Thank you, one and all, for seeing the value of becoming a Lifetime subscriber. Those of you haven't yet committed — there's lot of room in the wing at ***Worldradio*** headquarters to have your name engraved on the list of Lifetime subscribers.

•

First off, an update on the quest for DX QSL cards. The score remains DX stations-30, WF6O-0. I hope a really good pinch-hitter steps up to the plate and scores — I don't deserve a shutout, do I?

•

I came across a comment in an e-mail saying I am "cut from different cloth." This was part of a comment about Armond being firmly pro-code and anti-whiner.

Let me say this — I support the use of Morse code and continue to use the mode. Sure, Morse code speed requirements have been reduced as a license requirement, but it hasn't been done away with! I see the ability to use Morse code as a talent. I was blessed with the talent to be able to learn Morse code at a high speed — but I am not going to put down someone who can't achieve the coveted 20 wpm speed, no matter how hard they try. That's why the failure rate at radio school was near 75% on Morse code. Not everyone can achieve what I have.

However, I don't have the talent that some of you do when it comes to understanding electronics. I know some Hams who can look at a circuit and tell you what it does and why. I can look at the same thing and be utterly confused! There again, it's a talent and I haven't had the training to better myself in that talent.

As far as being anti-whiner, I see it as my duty to present both sides of an issue to you, our reader. It's not really my call to jump on someone with both feet who doesn't agree with the rest of us in Amateur Radio. I leave opinions up to you, our readers. You say it best. I just want to present both sides of an issue in an unbiased manner, and let you be the judge.

•

The time has come for a change in the ARRL Repeater Directory. Under the listing for the 2-meter bandplan, 146.52 should be dropped as the national simplex frequency for calling other amateurs. Why, you ask? I just completed a 3,900 mile road trip, monitoring that frequency 95% of the time. Leaving California, I heard a group of Hams conducting an informal net in the Reno, Nevada, area. From Reno, I went east to Winnemucca and headed north through Idaho and into Montana. Nothing heard in either of those states. Continuing on the journey, we headed down to Wyoming, east to South Dakota, south into Nebraska, west through the southern part of Wyoming, into Utah and then back to Nevada.

Sure, you say, the trip was through some sparsely populated Amateur Radio territory. Did I call "CQ" on the frequency? Yes, several times. When I saw another amateur license plate I would give my call, in the hope the other amateur would be listening. This should have worked, since we were out in the middle of nowhere, with very, very few repeaters in range.

My only contact on the 2-meter national simplex calling frequency didn't happen until I was about 75 miles east of Reno, headed home. I happened to see a pickup headed east with a screwdriver antenna, and put out my call. Lo and behold, he came back!

A reader sent a letter a couple of issues ago saying he would rather rely on CB radio while on the road, as he couldn't contact anyone on our calling frequency. Maybe he's right!

•

Everyone is saying we need some youngsters interested in the hobby if the hobby is to survive. There is a need for something new to get them away from the Internet, right? Why not set up a demonstration of PSK31 at a local school or library? This may be the exact thing we need to get them interested. After all, most of them are hooked on computers, right?

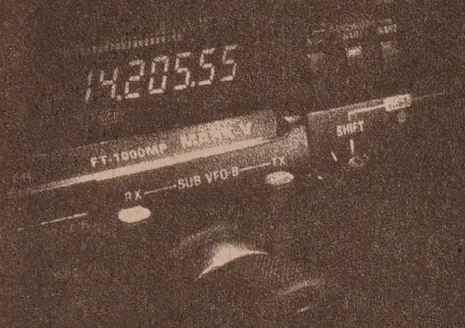
Armond told me about a gentleman he copied on PSK31 last night. This Ham was 81 years old, first licensed in 1937, and brand new to the mode. It appears he is one of the "seasoned" Hams who is not stuck in a favorite mode, and is looking for a new challenge. Well, he found it! I applaud him for being open to trying something new.

I now call upon all of our readers using PSK31 to think for a moment, and consider showing this new mode to a youngster. You may be surprised at how eager they are to jump right in and try it out! — *WF6O*



To subscribe call: 1-877-472-8643

# "Brick-Wall" Selectivity



Today s elite-class operators demand the best RF weaponry available. Yaesu s exciting new MARK-V FT-1000MP answers the call, with an expanded array of receiver filtering, 200 Watts of power output, and Class-A SSB operation capability for the cleanest signal on the band. Enhanced front-panel ergonomics save you seconds in a pile-up or a contest run, and Yaesu s HF design and manufacturing know-how ensures that no short-cuts have been taken in our effort to bring you the best HF transceiver money can buy. For more QSOs in your log, and more awards on your wall, there is only one choice: the MARK-V FT-1000MP from Yaesu!

### I. IDBT: Interlocked Digital Bandwidth Tracking System

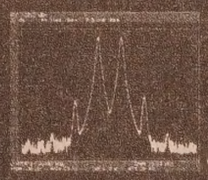
The IDBT feature greatly simplifies operation by matching the bandwidth of the DSP (Digital Signal Processing) system to the net bandwidth of the 8.2 MHz and 455 kHz IF stages. The IDBT system accounts for the settings of the IF WIDTH and SHIFT controls, and automatically sets a DSP bandwidth which matches the analog IF bandwidth.

### II. VRF: Variable RF Front-End Filter

Protecting the MARK-V s receiver components from strong out-of-band signals, the VRF system acts as a high-Q Preselector, located between the antenna and the main bandpass filter networks, providing additional RF selectivity on the 160-20 meter Amateur bands for multi-operator contest teams, DX-peditions, or for operation near MW/SW broadcast stations.

### III. 200 Watts of Transmitter Power Output

Utilizing two Philips[n] BLF147 Power MOSFETs in a 30-Volt, push-pull configuration, the MARK-V s transmitter puts out up to 200 Watts of clean output power, thanks to the conservative design of the PA section.



Class A 75 W PEP IMD

### IV. Class-A SSB Operation

Exclusively available on the MARK-V FT-1000MP , a press of a front-panel button engages Class-A SSB operation of the transmitter, at a power output level of 75 Watts. Class-A operation produces incredibly clean signal quality, with 3rd- order IMD suppressed 50 dB or more, and 5th- and higher-order products typically down 80 dB or more!

### V. Multi-Function Shuttle Jog Tuning/ Control Ring

The immensely-popular Shuttle Jog tuning ring, which is concentric with the Main Tuning Knob, has a new look in the MARK-V: it now includes the activation switches for the VRF (left side) and IDBT (right side) features, so you don t have to move your hand position to activate these important circuits during contest or pile-up situations!

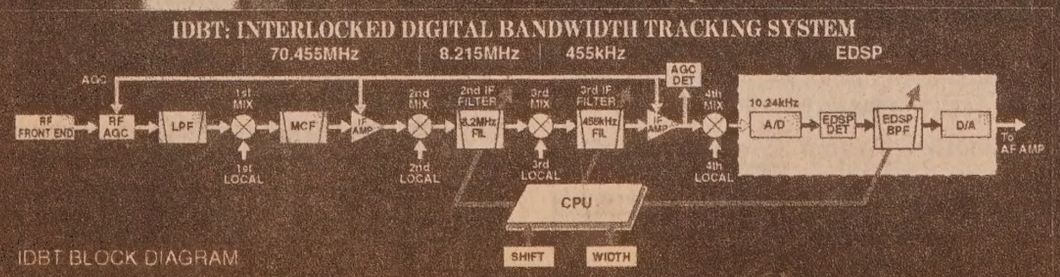
IDBT: A Breakthrough in Selectivity!

DC 30 V / 13.8 V Power Supply FP-29

Photo shows optional MD-100A8x Deluxe Desk Microphone

HF 200 W All-Mode Transceiver

# MARK-V FT-1000MP




IDBT BLOCK DIAGRAM

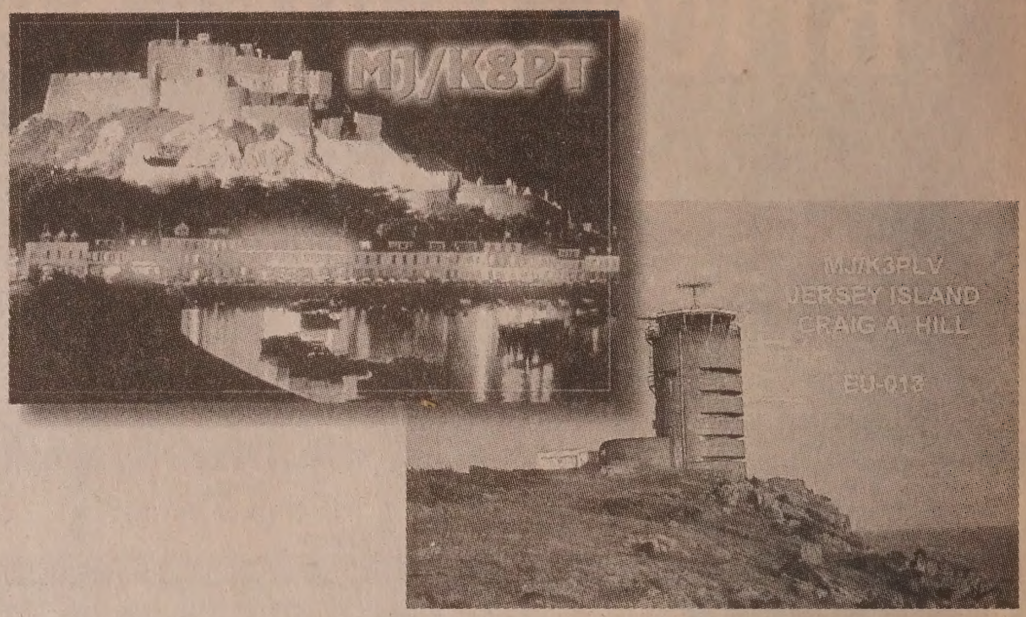
YAESU
Choice of the World's top DX'ers

For the latest news, hottest products:
Visit us on the Internet! http://www.yaesu.com

©2000 Yaesu USA 17210 Edwards Road, Cerritos, CA 90703. (562) 404-2700

# A civilized DXpedition

**B. Peter Treml, K8PT**
**Craig A. Hill, K3PLV**




Have you ever dreamed of being the DX instead of chasing the DX? I'll bet most DXers have had this dream. Well, we did something about it and you can too.

In late May of 1999 I answered an e-mail question on a DX reflector. This led to more e-mails to Craig, K3PLV, who was about to embark on a trip to the Island of Jersey in the Channel Islands with his XYL. I learned from Craig that he hoped to meet some of the Hams on the island and go to one of their club meetings. Maybe he would even get a chance to operate for a few hours. Possibly he would go back in 2000 and operate for an extended time, if the club would allow such an operation at the club hamshack.

Well, Craig did make that trip. He did operate from the club shack for a few hours and I was able to chat with him while he was there. He was having a great time. I let myself dream for a bit and well, maybe we could go together.

When Craig returned to the States he sent me an e-mail asking if I would be interested in going to the island of Jersey with him in 2000 and do a week of DX-ing from Jersey — "MJ." It was at that moment the dream became real. My XYL was enthusiastic and she thought it was a wonderful idea. The decision was made — we would go on this DXpedition and Craig and I immediately started planning for the month of March 2000.

Craig planned to take his Yaesu FT-900CAT, an MFJ switching power supply, his Dell laptop, and an MFJ-1278B TNC for RTTY. I would take my Alinco DX-70TH, Alinco switching supply, and MFJ-490 memory keyer. We would use the club antennas, which were a Mosley beam, a trap dipole for 80/40/20 and a 160-meter dipole.

After much anticipation, the BIG day arrived. Craig left from Erie, Pennsylvania on the south shore of Lake Erie and drove to Cleveland, Ohio to start his flight. I flew from Marquette, Michigan on the southern shore of Lake Superior. We were to meet in London (Gatwick airport) and then fly on to Jersey (an easy 45-minute flight). Well, the fog was thick in London and I was delayed in landing. We never saw each other in London, but I flew on to Jersey and Craig was there waiting. He had rented a car. Dennis, GJ4TXB, had met him at the airport and had given Craig the keys to the clubhouse. We were set to start the Channel Islands adventure.

Thankfully, Craig volunteered to drive. This was fine with me since the steering wheel was on the right side and Channel Islanders drove on the left side of the road. The roads are very narrow with no shoulders and many have walls right up to the road.

After an unintended trek (we missed a turn) around one of the larger towns, St. Brelade, we found our guesthouse. We checked in and then were off to the hamshack of the Jersey Amateur Radio Society (JARS) which is in a WWII German bunker. The German Army occupied the island during WWII. The island sports many bunkers, above and below ground and even an underground hospital that is now a museum.

We set up the shack on the second floor and started operating within 20 minutes. I found 15 Meters open and W5MN was first in my log. Craig started about an hour later on 12 Meters and our mini-DXpedition was off and running.

We came to love the JA openings that would last about three hours daily. It was fantastic. We were working them at almost four a minute. Japanese operators are particularly good. Once a call was posted, there would be dead silence and only the station called would return. This made our task easy and enjoyable. We also found the U.S. operators to be good. We had few problems with folks not listening to instructions. This made it a pleasure to work stations at a rapid rate.

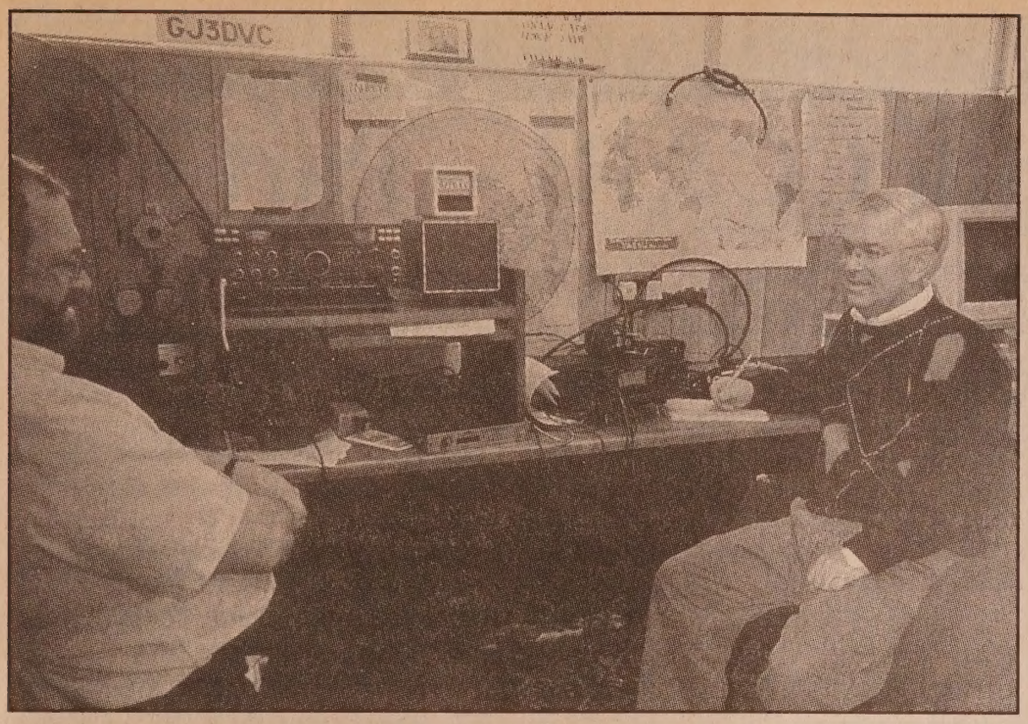
For the first few days, we worked SSB and CW only. When the pileups thinned a bit, we got the RTTY station up and running. Craig's research indicated that Jersey was really needed on RTTY. His research was very accurate. The pileups started immediately. The QSO rate was better than one a minute and continued for hours on end. This was fantastic!

Sales Order Line
1-800-927-4261
Burghardt INC.
AMATEUR CENTER
Proud to be "AMERICA'S MOST RELIABLE AMATEUR RADIO DEALER"
Serving Amateur Radio Operators Since 1937
We Want To Be "YOUR" Radio Dealer.
Write for our updated Used Equipment Listing!
Technical & Info. (605) 886-7314
Fax (605) 886-3444
(Internet Connections)
E-Mail - Hamsales@burghardt-amateur.com
See Our Catalog/Specials On Our Home Page
http://www.burghardt-amateur.com
710 10th Street SW
Watertown, SD 57201
HRS: MON.-FRI. 8-5p.m.;SAT. 9-1 p.m. CLOSED SUNS/HOLIDAYS

CW Keyers & Paddles ¥ Voice Keyers
Contest Card - PC voice keyer and CW interface card ¥ XT-4 - small, battery powered CW memory keyer ¥ Iambic keys, Paddle Pads & more!
Unified Microsystems
P.O. Box 133 R
Slinger, WI 53086
www.qth.com/w9xt
UM Unified Microsystems



To subscribe call: 1-877-472-8643




**Craig, K3PLB and Pete, K8PT, at the operating position on the second floor of the WWII German communications bunker.**

The WPX contest was coming up on the weekend. We were looking forward to it, but it was a big disappointment. We lost our edge. Our 100 watts could not hold a frequency and our neat "MJ" prefix was no different than many other unusual prefixes. We moved very quickly to the WARC bands and continued with the pileups. They were not as big and bad as before the contest so we had to work a little harder. Once Monday came, the pileups were back, as big as ever.

On several days we worked 18-20 hours on the radio. By the end of the week, our bodies were starting to wear out. This was our vacation and if we went back to the States with no pictures of this beautiful island our non-Ham friends would not understand, including our XYL's. So with one and a half days to go we took an afternoon off and toured the island. We saw the world famous Jersey Zoological Park, several medieval castles, Jersey cows, and beautiful beaches with 33-foot tides. We missed the lavender farm and the WWII underground German hospital museum. I snapped about four rolls of pictures and when it started to get dark we headed back to the radio room to work more DX.

We did get a few hours sleep each night at the guesthouse and even managed to try some of the local cuisine. The local people we met were wonderful. They were friendly and helpful and we felt very welcome. The island felt very British although, curiously, all the street names were in French. We have never had a week with so much tea but we completely took to it. It was great and we felt sorry for the DXpeditions who fought off sand fleas and land crabs while we were drinking tea and eating scones.

On the last day we started early enough to get the JA run in and started packing up. We closed down about 4 p.m. local time. It was hard to believe that our time was now coming to an end. We did a bit more sightseeing before meeting Dennis, GJ4TXB, and his wife Jillian for dinner. We talked about how rewarding the experience was, and how we hoped to return another time. What a wonderful way to end a dream DX vacation!

Our heartfelt thanks go to the Jersey Amateur Radio Society and its wonderful members. Without their support this operation would not have been possible. All told, we made about 6,000 contacts and now we were thinking about answering all the QSL cards. We will do it with smiles on our faces as we think back to the wonderful time we had on the Channel Island of Jersey. More tea anyone?

TX RX SYSTEMS, INC.
TX RX Systems Inc.
Manufacturer of
Filters & Duplexers
8625 Industrial Parkway, Angola, NY 14006
(716) 549-4700 • FAX: (716) 549-4772
E-mail: sales@txrx.com
www.txrx.com

QCWA
QUARTER CENTURY WIRELESS ASSOCIATION, INC
Licensed at least 25 years ago ?
And licensed now ?
Then you should belong to the
**Quarter Century Wireless Association**
For information write :
159 E. 16th Ave., Dept R
Eugene, OR 97401-4017
http:www.qcwa.org

**CONNECTORS – MADE IN USA**

| | | |
|---|---|---|
| PL-259ST | Silver Teflon | $1.00 ea. |
| PL-259STG | Silver Teflon Gold Pin | $1.19 ea. |
| PL-259GT | Gold Teflon | $1.29 ea. |
| 9913 2 pc. N Connector with Silver Teflon & Gold Pin | (Install like PL-259) | $3.00 ea. |

**COAX CABLE**

| | | |
|---|---|---|
| RG-213/U | Type IIA 95% Braid | 33/ft. |
| RG-8X | Type IIA 95% Braid | 14/ft. |

**450 OHM LADDER-LINE**

| | | |
|---|---|---|
| 16 Gauge | Stranded Cu-clad | 15/ft. |
| 18 Gauge | Solid Cu-clad | 12/ft. |
| 300 Ohm | KW Twinlead | 12/ft. |
| 72 Ohm | 13 Gauge Twinlead | 20/ft. |

**ANTENNA WIRE**

| | | |
|---|---|---|
| #14 7/22 | Hard Drawn Copper | .08/ft. |

**INSULATORS**

| | | |
|---|---|---|
| Dog Bone Type Antenna Insulators | | 50/ea. |
| HI-Q Antenna Ins. | 6 3/8" Long | $3.95/Pr. |
| 450 Ohm Ladder-line Insulators | | 49/ea. |
| Ladder-line Coax Cable Adapter | | $5.95/ea. |

**ALL BAND DOUBLETS**
With 100 feet of 450 Ohm Ladder-line

| | | |
|---|---|---|
| All-Bander | 135 Feet Long | $29.95PPD |
| Shorty All-Bander | 70 Ft. Long | $44.95PPD |

**G5RV ANTENNAS**

G5RV-MD 80-10 Meters 102' Long
With Xfmr & 70' RG-8X $49.95PPD
G5RV-E 80-10 Meters 102' Long
No Xfmr or Cable Only $28.95PPD
G5RV-JR 40-10 Meters 52' Long
No Xfmr or Cable Only $24.95PPD

**SLOPER ANTENNA**
Complete Kit With Instructions

| | | | |
|---|---|---|---|
| SLA-I | 160, 80 & 40 Meters | 60' | $49.95PPD |
| SLA-IC | Coils Only for SLA-I | | $24.95PPD |

**HALF-SIZE DIPOLES**
Complete Kit With Instructions

| | | | |
|---|---|---|---|
| HSD-160 | 160 Meters | 135' Long | $49.94PPD |
| HSD-80 | 80 Meters | 70' Long | $47.95PPD |
| HSD-40 | 40 Meters | 35' Long | $44.95PPD |

Add Shipping To All Non-postpaid Items
Add 10% Or $4.00 Minimum To Order
Ohio Residents Add 7% Ohio Sales Tax

**VGE / VAN GORDON ENGINEERING**
Box 21305, S. Euclid, OH 44121
Phone 216/481-6590 • Fax 216/481-8329

David Splitt, KE3VV

# Dealing with CC&Rs -- Part I

There are lots of names for this part of the year (dog days is one of the more printable), but for amateurs who are involved in the public service aspects of Amateur Radio, the late summer months mean just one thing — hurricane season.

When one of those storms hits land, causing damage from wind, tidal surge, and flooding, many of the normal lines of communication are interrupted. Hams get very busy.

When there is disruption of the normal channels of communication caused by man-made or natural phenomena, Amateur Radio is there to bridge the gap. We even practice for it. Appropriately, at the beginning of each hurricane season, Amateur Radio operators en masse (and en trucks and en vans) take to the woods, parking lots, school yards, public parks, mountain tops, and other sites on the near and far edges of civilization. Field Day, where the battery operated handheld and the QRO rig sucking juice from a gasoline generator compete for points in a dress rehearsal for future competitions where the prizes are property and lives.

It's easy to argue that there is no higher purpose in Amateur Radio than the duty to render public service. I use the term "duty" after some thought, because I am well aware that there is no requirement for any Ham to log a certain number of public service hours.

This public service aspect of Amateur Radio is so valuable to our society that government, as the representative of the people, has set aside large chunks of valuable radio spectrum for our use, and has declared some other laws subordinate to the needs of Amateur Radio. I am, as always, going to get some e-mail from amateurs who disagree about the paramount position of public service. Most of these will be from the experimenters, that ever-diminishing group of dedicated amateurs who seek to expand the bounds of the radio art. They will remind me that one of the main reasons for the Amateur Radio service and the broad expanse of spectrum from LF through UHF is the contributions made to the radio art by amateurs.

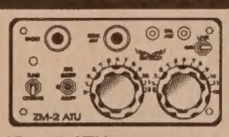
I may get a few e-mails (or more likely radiograms) from amateurs who continue to run the national traffic nets. I get a few of those phone calls... about once a month. All of them in the past five years have been from officials or members of the QCWA who are sending greetings and inquiring after my involvement in Amateur Radio. I somehow get the feeling that the majority of messages being handled in the traffic system are like this — generated by amateurs who want to keep the system alive and well, even as it erodes under the stream of e-mails and "unlimited" long-distance cell phone deals. Actually I do like the traffic system, and occasionally send a reply to one of my QCWA friends. Like Field Day, it has its purpose in readiness, if not daily practicality. But it does not keep the Ham spectrum inside the fence.

I hope there are no e-mails from my compadres among the DXers, county hunters, contesters, repeater aficionados and other niches that expand Amateur Radio beyond the amiable ragchew. Yes, I am aware that there are good technical reasons for all of these activities in terms of readiness for emergencies.

This is not to put down any of these activities — they are all a part of being skilled operators who are able to communicate information in any conditions regardless of the condition of the Internet, the telephone system, or whether the wood is dry enough to smoke up a signal fire.

So what does this all have to do the CC&Rs, the covenants, conditions, and restrictions in property deeds, homeowner association rules, condominium by-laws, and other "private" limitations on the erection and use of Amateur Radio antennas? Read on.


**ZM-2 ATU kit**




$50.00
Post Paid (US & CA)
$53.00 to Japan, Europe

- 15 watt ATU
- Visual SWR indicator
- Tunes coax fed, Long, Short, Random, Wire, as well as balanced Ant
- Fast Tuning

Also available:
NW series 80m, 40m, 30m, 20m monoband QRP transceiver
LadderGrabber ant Insulator
CoaxGrabber ant insulator

EMTECH - 1127 Poindexter Ave W
Bremerton, WA 98312 (360) 405-6805
SASE for Catalog
http://emtech.steadynet.com


## Amateur Radio Call Signs

The following shows the last call sign in each group to be assigned for each VE Region under the sequential call system as of 30 July 2000.

For more information about the sequential call sign system, see Fact Sheet PR5000 #206-S dated August 1996 or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll free 888/225-5322

| District | Group D Novice | Group C Tech/Gen | Group B Advanced | Group A Am Extra |
|---|---|---|---|---|
| Ø | KCØIMK | ++ | KIØRR | ABØOC |
| 1 | KB1FNG | ++ | KE1LW | AA1WC |
| 2 | KC2GSX | ++ | KG2RM | AB2JK |
| 3 | KB3FHU | ++ | KF3DX | AA3VJ |
| 4 | KG4IVN | ++ | KV4FB | AG4AO |
| 5 | KD5LBR | ++ | KM5XC | AC5ZG |
| 6 | KG6CQU | ++ | KR6EP | AD6RU |
| 7 | KD7JWU | ++ | KK7WK | AE7TA |
| 8 | KC8PBR | ++ | KI8JX | AD8BC |
| 9 | KB9WTI | ++ | KG9TC | AA9ZU |
| N. Marianas | WHØABN | AHØBC | KHØJF | NHØP |
| Guam | WH2AOB | AH2DN | KH2UT | ++ |
| Hawaii | WH6DGE | KH7ZY | AH6QK | WH7G |
| American Samoa | WH8ABI | KH8DO | AH8AI | AH8R |
| Alaska | WL7CVE | KLØXX | AL7RP | ALØV |
| Virgin Island | WP2AIM | NP2KQ | KP2CP | ++ |
| Puerto Rico | WP3NOT | WP3HN | KP3BM | WP3E |

++ All calls in this group have been assigned

(NOTE: Group B calls are no longer issued by the FCC.)



To subscribe call: 1-877-472-8643

# Very Important Notice!!

If you received this copy of ***Worldradio*** and you're not a regular subscriber, this was your free sample copy. We sent it to you so you could see all the news, features and columns in ***Worldradio*** .

You are cordially invited to join in with all the other active Amateur Radio operators by subscribing.

***Worldradio*** is two-way communication. Send in your news, information and letters.

Your comments and suggestions are most welcome.

Amateur Radio is a very rewarding activity and ***Worldradio*** hopes to reflect that.

**NEWS:**
2120 28th St.
Sacramento, CA 95818
(916) 457-3655
Fax: (916) 457-7339
*n6wr@ns.net*

**SUBSCRIPTIONS:**
2224 Beaumont St. Ste. D
Sacramento, CA 95815
(877) 472-8643
(8 a.m.-5 p.m. PT, M-F)
Fax: (916) 920-1015
*subscribe@wr6wr.com*

**Name**_____ **Call**_____

**Address**_____

**City**_____

**State**_____ **ZIP**_____

❒ **New** ❒ **Renewal** ❒ **Gift**

| | | |
|---|---|---|
| **12 issues** | **(only $1.25 per issue)** | **$14.79*** |
| **24 issues** | **($1.16 per issue • save $2)** | **$27.79*** |
| **36 issues** | **($1.14 per issue • save $4)** | **$40.79*** |
| **Lifetime** | **(Be a WR super booster)** | **$186.79*** |

*(non-U.S. ZIP: 1 year, $24.79 — 2 years, $47.79 — 3 years, $70.79 — Lifetime, $286.79)

We gratefully accept U.S. Funds drawn on U.S. Banks, International Money Orders, Canadian Postal Money Orders (in U.S. Funds), or you can charge your subscription.

❒ Check enclosed ❒ VISA ❒ MasterCard ❒ AmEx

Card#_____ Exp.date _____

Signature_____

Please clip (*photocopies o.k.*) and mail to:

***Worldradio***

**2224 Beaumont St., Ste. D • Sacramento, CA 95815**
For charge subscriptions only, call TOLL FREE: (877) 472-8643 weekdays, 8 a.m. to 5 p.m. Pacific time.

*Thank you!*

If you slogged through the February or May "Rules and Regs" columns, you already know that the federal preemption of local zoning and other ordinances contained in the FCC's 1985 ruling known as PRB-1 do not apply to "private" covenants or CC&Rs. You know that CC&Rs were specifically excluded from PRB-1 by the FCC on the grounds that they are "contractual agreements between private parties." You are up to date on the status of the ARRL's efforts to deal with CC&Rs — that the ARRL petitioned the FCC for a federal rule that would extend the limited preemption of local governmental regulations to CC&Rs, and that the FCC denied the petition. To be completely up to date (unless events have overtaken the deadline for this column), you know that the ARRL filed a Petition for Partial Reconsideration of the FCC's denial.

On the positive side, you know that the FCC has it in its power to preempt CC&Rs for Ham antennas. In its 1996 decision regarding satellite dish antennas, the FCC said, "the government may abrogate restrictive covenants that interfere with federal objectives enunciated in a regulation." In other words, the FCC can make rules implementing the overriding federal interest in Amateur Radio communications by preempting CC&Rs. That is half of the key to changing the current dismal status quo of amateurs caught in the tangle of CC&Rs. Anyone who witnesses the public service role of Amateur Radio will understand.

So this is the first key to CC&Rs. Make sure that your fellow citizens know about the valuable public service aspects of Amateur Radio. It does not matter that the activities have nothing to do with putting up an antenna in your restricted CC&R community. We already know that it does not take the approval of the local "design committee" to use an HT or the local repeater. Whenever I visit my parents in Florida, I operate without any restriction (other than common sense and the FCC rules) from the HF and VHF mobile rigs in my car. The Big Green Dragon is immune; CC&Rs do not apply to Ham sticks on a Mercury Marquis.

If the ARRL really wants to help amateurs deal with CC&Rs, it will put some of our dues money into a film or video presentation that focuses on the public service activities of Hams. It could be called "Amateur Radio: In Touch With America" or something like that, and should be available to Hams and Ham clubs across the country for a modest fee to cover copying and mailing.

"Amateur Radio: In Touch With America" should deal with the broadest range of involvement of Hams in their communities. Show the non-emergency assistance provided without cost to Independence Day parades, AIDS marathons, church bazaars, and other crowd-attracting events. Build on the various constituencies that can be called on to support amateurs when they want to put up antennas. When it comes time for the members of the community design board to approve your modest request for that 50-foot tower and 40-meter yagi, you are gonna need a lot of gratitude, or at least a healthy dose of sympathetic understanding and appreciation, for leverage.

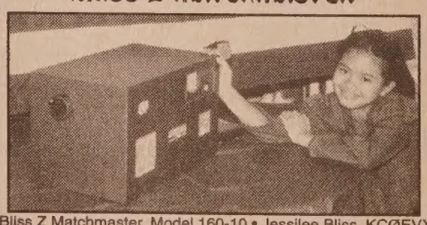
**"...they can have the benefits of Amateur Radio without the perceived ugliness of metal and wire monstrosities."**

The video should also give particular attention to emergency communications and there should be a real attempt to show the broadest range of disasters. Amateur communications in hurricanes will sell well on the Gulf Coast, but won't have the same impact on homeowners in Oregon. Show them amateurs handling communications overflow in a forest fire evacuation or flood. Including tornado footage will cover a large part of the country. There is a dual purpose here. First, it gives amateurs some solid ideas on how they can gain the respect and gratitude of their communities.

Of course, the same video that Ham clubs can watch to see what they can do to ingratiate themselves with the local non-Ham citizenry can be used to show local civic groups how they are being served by amateurs. It would make a terrific opening for a presentation on how the benefits of having amateurs in the community can be gained by relaxing the rules on antennas. If there is a "Part II" of the video, it can be dedicated to displays of how Hams have used their skills to blend antennas unobtrusively with the surroundings. Again, the dual purpose of sharing "stealth" ideas with CC&R-bound Hams is also useful for demonstrating to design committees that they can have the benefits of Amateur Radio without the perceived ugliness of metal and wire monstrosities.

Even if the FCC approves some modest preemption of CC&Rs, Amateur Radio operators are much less likely to incur the wrath of their neighbors if they can show them the positive public service aspects of the hobby before slapping a rhombic on the condo roof. But the more likely scenario is that any FCC action on CC&Rs is years away and will take more than a legal petition to achieve. The video (or series of short videos) could not only assist Hams to obtain discretionary relief in the interim, but also can be a cornerstone of the lobbying effort to gain public and Congressional support for preemption.

The availability of the video PR tool will also aid the ARRL in getting better information and feedback from its Ham operator constituents about the extent of the real CC&R problem. In next month's column, I plan to outline some strategies for amateurs to use in dealing with their own CC&R entanglements. I have already heard from a number of Hams who have had some successes and some failures in dealing with CC&Rs. Send me a letter or an e-mail with your story, and the best examples will get a mention here. And tell me what you think about the ARRL "Amateur Radio: In Touch With America" video idea — or better yet, tell the ARRL.

BLISS Z MATCHMASTER®

Bliss Z Matchmaster, Model 160-10 • Jessilee Bliss, KCØEVX
NEW!
Superb Versatile Balanced
WIDE RANGE
twin coil (Patent Applied For)
Tuner US$ 699.00
Air & Water King, Inc., 31345 Hwy 184, Dolores, CO 81323
FREE INFO:(970) 882-5477 Fax#(970) 882-3922
CREDIT CARD ORDER: 1-888-782-9864
angelie@bliss.org www.airwaterkinginc.purification.com



To subscribe call: 1-877-472-8643

# The Radiosport Olympics

**Dave Bell, W6AQ**

It has 53 two-man teams representing countries from all over the world and covers a full 20 hours of competition. It involves interaction with tens of thousands of participants the world over, requires physical stamina, mental agility, and mastery over numerous, diverse obstacles, and is an amateur sport by definition.

What is it? World Radiosport Team Championships. Why isn't this an official Olympic game?

As you read this, Olympics 2000 is about ready to kick off in Sydney, Australia. WRTC 2000 got the jump on them by taking the worldwide stage on the 8th and 9th of July with the top Amateur Radio contest teams assembled in the picturesque little mountain resort, Bled, Slovenia — on the "sunny side of the Alps" as they like to say. (Of course, during the contest there was a huge lightning-rain storm.)

I ask you: Aren't the World Radiosport Team Championships a bigger deal worldwide than rowing or badminton or luge? Is luge huge? I'm just asking. Or, for that matter, Taekwondo or fencing or archery? Or curling? If hairdressers can qualify for the Olympics, so can we.

Since that's unanimous, I hereby nominate Tine Brajnik, S5ØA, along with his committee of 15 or so merry men who so magnificently staged WRTC 2000, to be chairman for life of Radiosports in the Olympics.

Of course, Tine may never get the crick out of his back, caused by all the bows he's taken for WRTC-2000.

What did he and his countrymen do to deserve such praise you might be asking?

Fifty-three teams of contesters, 106 of the world's best, descended on Slovenia in the few days before 07 July 2000, along with 53 referees, an overall referee (Dave Sumner, K1ZZ) and the most honest and squeaky clean contest score-tabulator in the universe, Dick Norton, N6AA. So you might say the integrity of this operation was covered from AA to ZZ and you'd be right.

And every one of those 161 stalwarts, in some cases with spouse, were picked up at the Ljubljana Airport and whisked off to Bled in a Slovenian Army Jeep. Not quite a limo, but more practical and more fun. (Incidentally, you learn quickly that the letter "J" in Slovenian isn't really a "J", it's more like an "I" — so pronounce the words accordingly. Whoever put the Slovenian language together clearly had too many slivovitz's.)

**Amateur Radio operators from around the world met in Slovenia to compete in the Radiosport Olympics.**

But it's not enough just to gather together the greatest contest operators in the world. How can they compete without stations?

So Tine (pronounced halfway between Teen and Tina) scouted out the 53 best locations in Slovenia, from up in the Northeast near the Hungarian goulash border to down in the Southwest overlooking the Adriatic and all of those ten-gallon Italians.

Every one of the 53 QTH's was a hilltop or mountaintop with a 360 degree view. Some of the digs won't make anybody's list of five star accommodations and in fact many of them reinforced "shack" as a charitable description, but WOW were they great locations. To die for. And if you'd had to walk to them


FREE SAMPLE COPY!

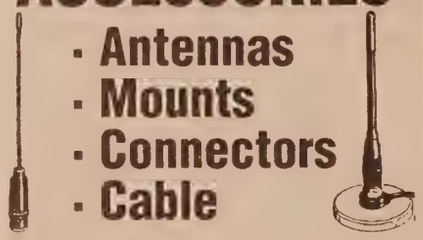
ANTIQUE RADIO CLASSIFIED

*Antique Radio's Largest-Circulation Monthly Magazine*

Articles - Classifieds - Ads for Parts & Services
Also: Early TV, Ham Equip., Books, Telegraph, 40's & 50's Radios & more...
*Free 20-word ad each month. Don't miss out!*
1-Year: $39.49 ($57.95 by 1st Class)
6-Month Trial - $19.95. Foreign - Write.
A.R.C., P.O. Box 802-N14, Carlisle, MA 01741
Phone: (978) 371-0512; Fax: (978) 371-7129
Web: www.antiqueradio.com



TRANSEL CORPORATION
HAS A FULL LINE OF AMATEUR ACCESSORIES



- Antennas
- Mounts
- Connectors
- Cable

All of our products can be viewed on our website
**www.transeltech.com**
or call for a catalog

TRANSEL CORPORATION

123 E. South St. PO BOX 160
Harveysburg, OH 45032
**1-800-829-8321**
**FAX 513-897-0738**

**Fellow Hams gathered at the banquet to share ideas and swap stories with some of the best contesters in the world.**

you probably would've.

And every hilltop had an identical triband beam at about 40 feet, give or take a few, plus a Windom at about the same height. And the contesters brought their own transceivers, TS950's, FT1000's, 756PRO's, etc., plus one computer for scoring, etc.

The contestants also brought boxes full of interconnecting cables, test equipment, keys and keyers, and all of the cherished chochkas that make a shack a maze — if not amazing. Imagine these bags going through the airport x-ray machines. That they all got to Slovenia proves that nobody is paying attention.

N3AD even brought his own Velcro, so he could keep his toys from walking away during the heat of battle.

WRTC 2000 was scheduled to start at 2 p.m. local time in Slovenia, so Tine had each and every team and their equipment, plus their referee, driven to their locations by their local "host" on early Friday afternoon. This only happened after one of the many ceremonies that made the event very special — this one handing out the envelopes with the one by three by one call signs (S584M, for example) to each team. The team then gave the unopened envelope to their referee, who would open it exactly five minutes before the contest and share the call sign with the contestants. They had five minutes to program it into their keyer, practice sending it, and enter the fray.

Even though they wouldn't know their call sign until the last five minutes — when their adrenaline was pounding so hard they probably would have trouble remembering their home call sign, the contestants had about 24 hours to hook up their stations, check out the sleeping accommodations (which wouldn't get much use — just as well since it was sometimes tents) and do whatever kind of mental tune up they do to enter the glorious radio Olympics.

"Olympism is a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy found in effort, the educational value of good example and respect for universal fundamental ethical principles." That's the first rule of Olympic competition which is a principal followed by all WRTC participants, Olympics or not.

Normally I would be at home or maybe out at Don's (W6EEN) contest station participating in this contest, which I consider one of the greatest of all. But this year I was in Slovenia, not as one of the 106 best contesters (it'll never happen for someone like me who considers himself a casual contester), or even one of the 53 referees (they probably feel I'd fall asleep in the middle of the contest and they'd probably be right), but as a visitor with a video camera, a new one I'd just bought a month before, with the thought of documenting this, one of my very favorite contests. It'd been 30 years since I'd personally shot a documentary, but I decided it'd be fun — and it was.

When the participants headed out for their locations, I figured I'd catch up with a couple of the stations closest to Bled, N3AD and maybe JH4NMT, both of whom were less than 50 miles away, and videotape them setting up. As I quickly learned, however, hilltops have no addresses. Even with my friend Ray, N6VR, doing his best with the map and an Italian amateur along riding shotgun, my little rented Opel bounced its way up a lot of logging trails and dry creek beds before, by some miracle, we actually found Alan, N3AD, and his partner, Jim, N3BB, and their referee, Ranko YT6A, who it turns out is not only an avid contester but owns a TV network in Montenegro and is also making a documentary about WRTC 2000.

Their station was in a little military surplus shed that had been built as a mobile radio room to be perched on the back of an army deuce and a half — not unlike the olive drab trucks I saw at Ft. Monmouth in 1956 and the ones that bounced all over the world in WWII.

Somehow, four local Hams latched onto the ready made radio room, hauled it to their mountaintop just east of Ljubljana and made it into an all-seasons contest station. (In the winter, they


**TEACH Morse Code**

**Want to TEACH CW & need help?**

**If you or your club would like to help people pass a 5 wpm test, Morse Code 2000™ is a course that *will help anyone* teach CW !**

**New Ver. 2 CD - Includes this & more!**

A 180 page Instructor's Manual on CD with 100+ pages of Work Sheets & Lesson Sheets!
150+ Morse Code ASCII Files to send using Morse Academy, MFJ-414 Morse Tutor, etc!
VE style practice exams *with* Q&A!
Teaching aids, progress logs, handouts etc. are in .doc and .pdf format —***you* can edit to suit!**

**$29.95 includes S&H (Mass. add $1.50 tax)**
**Check or MO** to: Dragonwyck Design, Inc.
PO Box 77, Georgetown, MA 01833
**VISA/MC Orders: 978-352-7711**
sales@morsecode2000.com
**www.morsecode2000.com**



**LENTINI COMMUNICATIONS, INC.**
**1•800•666•0908**
Local (860) 666•6227 • FAX (860) 667•3561
**VISIT OUR WEB SITE AT**
**www.lentinicomm.com**
21 GARFIELD STREET,
NEWINGTON, CT 06111
STORE HOURS: M-F 10:00am-6:00pm,
SAT., 10:00am - 4:00pm



**handihams**
Ham Radio for people with disabilities since 1967
• License manuals and books on tape
COURAGE HANDI-HAM SYSTEM
612 520 0511 handiham@mtn.org
3915 Golden Valley Rd., Golden Valley, MN 55422
courage





To subscribe call: 1-877-472-8643

have to hike up the last mile of hill, but they're young and eager.) For WRTC 2000 these Slovenian contesters took down their 5-element 10-meter beam so they could put up the three element competition tribander, one of 53 identical beams used by the contesters. Standing on the top of their wonderful hill, scanning the horizon, the only thing even slightly higher was a spot a couple of miles distant which was home to one of Slovenia's hundreds of hilltop churches.

I looked around at the majesty surrounding this idyllic Ham location and remembered the comment Jerry Lewis (yes, that Jerry Lewis) had made to me only a couple of days before. Jerry is going to direct a movie I'm trying to put together and when I told him I'd be out of touch for a week or so because I was going to Slovenia, he said, "Voluntarily?" He obviously had never been to Slovenia or he wouldn't have cracked wise. It's one of the most beautiful places I've ever been to, and I've been to a few.

And while this past summer has been a nightmare for some air travelers, I have to get a plug in here for one of my favorite airlines, Delta. I traded in miles for a business class seat from Los Angeles to New York to Munich and back, with little Adria Airlines getting me to Ljubljana. Everything was on time and without a hitch. In fact I had more elbow room on Delta than most of the contesters I visited had in their shacks.

As N3AD and N3BB tried to get the voltage off their computer ground connection, I finished my videotaping and headed back to Bled with their referee as a passenger. Ranko decided that he'd spend the evening in his nice hotel room with his wife and kids rather than in a tent on the windy hilltop. Four big guys in that tiny Opel bouncing down a rocky mountain trail tested that poor vehicle's mettle, and metal. It made it down, though one of my passenger's said he thought he smelled the brakes. I think he smelled a passing pasture.

The night before the big contest my carload of amateurs decided we'd meet for dinner at Bled's Grand Hotel Toplice which overlooks one of the prettiest lakes in the universe and have a dinner on their patio. We were joined by Mario, S56A, one of Tine's lieutenants and one of the many memorable characters gathered for the grand event, plus Ranko's wife and kids. It was a memorable pre-contest dinner.

Early the next morning I met up with another of Tine's assistants, a guy named Jurij (that's pronounced Yuri in case you've forgotten your Slovenian already) who had a jeep full of photographers and celebrities who he was driving around to various sites so they could photograph and celebrate. I decided to follow along in my little Opel since Jurij's jeep was about full. First stop, JM1CAX and his partner, JO1RUR and their referee, YT6T. Then on to WC4E and WØUA and their referee YT3T. All was going well, and then came the rain and lightning, looking for those wonderful lightning rods known as antennas.

The next day Jurij suggested I ride in the jeep. I think he was tired of waiting for my little Opel to catch up. We visited four more sites, including another visit to N3AD and N3BB who were going great guns. K1AR and K1DG we caught during one of their breaks, with one hour of operating time left, which they were saving for the end of the contest. With their charming referee, PY5EG, they were feeling pretty good about their progress to date — a little over 2,000 contacts and about 300 multipliers. And indeed, they ended up coming in third overall as they and everyone else learned at an impressive ceremony prior to the magnificent closing banquet.

The awards ceremony, like the opening ceremony, was held at a place they called the Tourist Center or something like that which, like many such facilities had a long stairway allowing for dramatic entrances yet somehow managed to be unattractive as only buildings trying to be impressive can be. A left over from the Communist days explained one person.

We call it the Khadaffi Center because it's so ugly, volunteered another. Anyway, it was here that an Olympics-like three tiered platform had been constructed, an army band had been recruited, several different varieties of dance groups were assembled, and the top three winners were announced amid appropriate pomp and ceremony.

The winners were Dan Street, K1TO and Jeff Steinman, N5TJ (ex KRØY) who also won the 2nd WRTC four years earlier in San Francisco. Second place went to a young Russian team, RA3AUU and RV1AW. Two other U.S. teams finished in the top ten.

After the really impressive trophies and medals were given away, the crowd headed for the banquet which was everything a banquet should be and then some. It's a cliche to say that a good time was had by all, but if there was anybody in Bled that Monday night, 10 July 2000 who wasn't having a great time they certainly weren't in the huge banquet hall wrapping up one of the great Amateur Radio events of all time.

Too bad you weren't there. Maybe next time.


INNOVATIVE (NO-TUNE) WIRE ANTENNAS
Discover Them - Simple, Easy to Build - Save Money
135 ft - THE HOLY GRAIL 160 thru 10 meters
67 ft - THE HOLY GRAIL (lite) 80 thru 10
NEW 41' Mini-Grail kit 80 thru 6
35 ft - SMITHDOM Short 40 thru 10
100 W balun transformers for Windom or Smithdom antennas
For Additional Information on all products
Send Name, Address, Call and #10 SSAE to:
SMITHDOM PRODUCTS LLC
255 N OLD MANOR
WICHITA, KS 67208

CALL (800) 727-WIRE (9473)
That's All You Need to Know About Wire, Cable and Accessories!
20 Years of Quality & Service!
Web Site: http://www.thewireman.com
Email: n8ug@thewireman.com
TECHNICAL HELP: (864) 895-4195
261 Pittman Rd. • Landrum, SC 29356
THE WIREMAN™ INC.

NRS
NORM'S ROTOR SERVICE
5263 Agro Drive • Frederick, MD 21703
(301) 874-5885
We rebuild rotors, plus:
Rebuilt Rotors for sale • Parts for U.S.-built rotors • We Buy Used U.S. Rotors/Controls for CASH!
NORM JEWELER, W3NRS

THE BIG DK-DX
Don Johnson, W6AAQ's
3.5 — 30 MHz mobile antenna, manufactured by:
H. Stewart Designs
P.O. Box 643 • Oregon City, OR 97045
(503) 654-3350
See Worldradio, Oct. 1994 issue.

ELECTRIC RADIO
celebrating a bygone era
In our 10th year, ER is a magazine for those who are interested in vintage ham/military/tube-type gear, AM operation and the history of Amateur Radio. Largest vintage-only classifieds anywhere! $3 for a sample copy, refundable towards a subscription.
ER, 14643 County Road G, Cortez, CO 81321

QslKit at home Printing • QslCardboxes • DXCC, States Index Dividers • Contest Keyboard Overlays • DX Return Envelopes • DX Edge • Vinyl QSL Wall Holders • Laminated World Projection Maps
*NEW* Aluminum CALLSIGN BADGES • HAMSIGNS • RV SIGNS
HamStuff by W7NN
www.HamStuff.com
10624 Zephyr Lane SW • Olympia, WA 98512

CUBEX QUAD ANTENNA CO.
40 YEARS OF QUALITY ANTENNAS
SKYMASTER H.F. KITS FROM $295.95
PRE-TUNED H.F. QUADS FROM $439.95
Quad Antennas From 2 Through 40 Meters
2 METER 4 EL. PRE-TUNED $49.95 + S&H
6 METER 2 EL. PRE-TUNED $69.95 + S&H
BEST PRICES ON DOUBLE BRAIDED "DACRON" ANTENNA ROPE
visit our new web site http://www.cubex.com
Write Or Call For Free Catalog
228 HIBISCUS ST. • JUPITER, FL 33458
(561) 748-2830 • FAX: (561) 748-2831

# MFJ TUNERS

## MFJ-989C *Legal Limit* Antenna Tuner

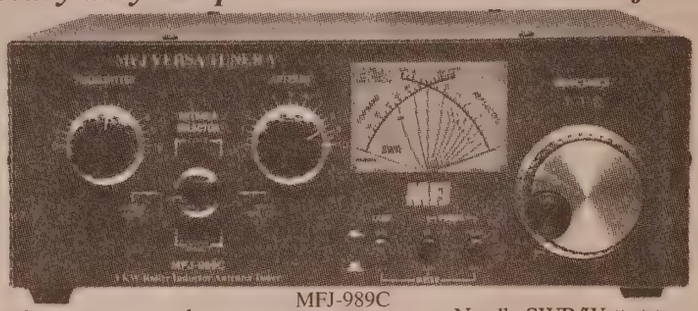
***MFJ uses super heavy duty components to make the world's finest legal limit tuner***

***MFJ uses super heavy duty components -- roller inductor, variable capacitors, antenna switch and balun -- to build the world's most popular high power antenna tuner.***

**The** rugged world famous MFJ-989C handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Covers 1.8 to 30 MHz, including MARS and WARC bands.

**MFJ's** *AirCore*™ roller inductor, new *gear-driven* turns counter and weighted spinner knob gives you exact inductance control for absolute minimum SWR.

**You** can match dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave -- nearly any antenna. Use coax, random wire or balanced lines.



MFJ-989C
**$359.95**

**You** get everything you've ever wanted in a high power, full featured antenna tuner -- widest matching range, lighted Cross-Needle SWR/Wattmeter, massive transmitting variable capacitors, ceramic antenna switch, built-in dummy load, *TrueCurrent*™ Balun, *scratch-proof* Lexan front panel -- all in a sleek compact cabinet ($10^3/_4$Wx$4^1/_2$Hx15D in).

***MFJ AirCore*™ *Roller Inductor*** gives high-Q, low loss, high efficiency and high power handling.

**MFJ's** exclusive *Self-Resonance Killer*™ keeps damaging self-resonances away from your operating frequency.

**Large**, self-cleaning wiping contact gives good low-resistance connection. Solid 1/4 inch brass shaft, self-align bearings give smooth non-binding rotation.

**MFJ *No Matter What*™ Warranty**

**MFJ** will repair or replace your MFJ-989C (at our option) *no matter what* for one year.

## *More hams use MFJ tuners than all other tuners in the world!*

### MFJ-986 Two knob *Differential-T*™

MFJ-986
**$329.95**

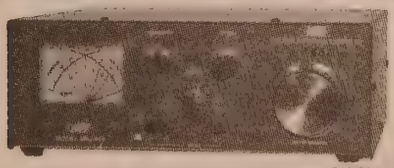
***Two*** knob tuning (differential capacitor and *AirCore*™ roller inductor) makes tuning foolproof and easier than ever. Gives minimum SWR at only one setting. Handles 3 KW PEP SSB amplifier input power (1.5 KW output). Gear-driven turns counter, lighted peak/average Cross-Needle SWR/Wattmeter, antenna switch, balun. 1.8 to 30 MHz. $10^3/_4$Wx$4^1/_2$Hx15 in.

### MFJ-962D *compact* Tuner for Amps

MFJ-962D
**$269.95**

A few more dollars steps you up to a KW tuner for an amp later. Handles 1.5 KW PEP SSB amplifier input power (800W output). Ideal for Ameritron's AL-811H! *AirCore*™ roller inductor, gear-driven turns counter, pk/avg lighted Cross-Needle SWR/Wattmeter, antenna switch, balun, Lexan front, 1.8-30MHz. $10^3/_4$x$4^1/_2$x$10^7/_8$ in.

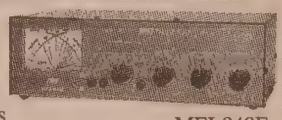
### MFJ-969 300W *Roller Inductor* Tuner



MFJ-969
**$199.95**

**Superb** *AirCore*™ Roller Inductor tuning. Covers *6 Meters* thru 160 Meters! 300 Watts PEP SSB. *Active* true peak reading lighted Cross-Needle SWR Wattmeter, *QRM-Free PreTune*™, antenna switch, dummy load, 4:1 balun, Lexan front panel. $3^1/_2$Hx$10^1/_2$Wx$9^1/_2$D inches.

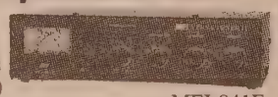
### MFJ-949E *deluxe* 300 Watt Tuner



MFJ-949E
**$149.95**

*More hams use MFJ-949s than any other antenna tuner in the world!* Handles 300 Watts. Full 1.8 to 30 MHz coverage, 48 position *Precision48*™ inductor, 1000 Volt tuning capacitors, *full size* peak/average lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, dummy load, *QRM-Free PreTune*™, scratch proof Lexan front panel. $3^1/_2$Hx$10^5/_8$Wx7D inches. **MFJ-948, $129.95.** Economy version of MFJ-949E, less dummy load, Lexan front panel.

### MFJ-941E *super value* Tuner



MFJ-941E
**$129.95**

*The most for your money!* Handles 300 Watts PEP, covers 1.8-30 MHz, *lighted* Cross-Needle SWR/Wattmeter, 8 position antenna switch, 4:1 balun, 1000 volt capacitors, Lexan front panel. Sleek $10^1/_2$Wx$2^1/_2$Hx7D in.

### MFJ-945E HF+6 Meter *mobile* Tuner

MFJ-945E
**$119.95**

**Extends** your mobile antenna bandwidth so you don't have to stop, go outside and adjust your antenna. Tiny 8x2x6 in. *Lighted* Cross-Needle SWR/Wattmeter. Lamp and bypass switches. Covers 1.8-30 MHz *and* 6 Meters. 300 Watts PEP. **MFJ-20, $4.95,** mobile mount.

### MFJ-971 *portable/QRP* Tuner

MFJ-971
**$99.95**

**Tunes** coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle Meter. SWR, 30/300 or 6 Watt QRP ranges. Matches popular MFJ transceivers. Tiny $6x6^1/_2x2^1/_2$ inches.

### MFJ-901B *smallest* Versa Tuner

MFJ-901B
**$79.95**

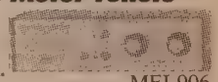
**MFJ's** smallest (5x2x6 in.) and most affordable wide range 200 Watt PEP Versa tuner. Covers 1.8 to 30 MHz. Great for matching solid state rigs to linear amps.

### MFJ-16010 *random* wire Tuner

MFJ-16010
**$49.95**

**Operate** all bands anywhere with MFJ's reversible L-network. Turns random wire into powerful transmitting antenna. 1.8-30 MHz. 200 Watts PEP. Tiny 2x3x4 in.

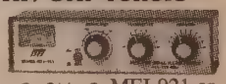
### MFJ-906/903 *6 Meter* Tuners



MFJ-906
**$79.95**

**MFJ-906** has lighted Cross-Needle SWR/Wattmeter, bypass switch. Handles 100 W FM, 200W SSB. **MFJ-903, $49.95**, Like MFJ-906, less SWR/Wattmeter, bypass switch.

### MFJ-921/924 *VHF/UHF* Tuners



MFJ-921 or MFJ-924
**$69.95**

**MFJ-921** covers 2 Meters/220 MHz. **MFJ-924** covers 440 MHz. SWR/Wattmeter. $8x2^1/_2$x3 inches. Simple 2-knob tuning for mobile or base.

### MFJ-922 144/440 MHz Tuner

MFJ-922
**$79.95**

**Ultra** tiny $4x2^1/_2x1^1/_4$ inch tuner covers VHF 136-175 MHz and UHF 420-460 MHz. SWR/Wattmeter reads 60/150 Watts.

### MFJ-931 *artificial* RF Ground

MFJ-931
**$89.95**

**Creates** artificial RF ground. Also electrically places a far away RF ground directly at your rig by tuning out reactance of connecting wire. Eliminates RF hot spots, RF feedback, TVI/RFI, weak signals caused by poor RF grounding. **MFJ-934, $169.95**, Artificial ground/300 Watt Tuner/Cross-Needle SWR/Wattmeter.

**Free MFJ Catalog**
***and Nearest Dealer . . . 800-647-1800***

***http://www.mfjenterprises.com***

1 Year *No Matter What*™ warranty 30 day money back guarantee (less s/h) on orders from MFJ

**MFJ ENTERPRISES, INC.**
Box 494, Miss. State, MS 39762
(662) 323-5869; 8-4:30 CST. Mon.-Fri.
**FAX:** (662) 323-6551; **Add s/h**
**Tech Help:** (662) 323-0549

Prices and specifications subject to change. (c) *2000 MFJ Enterprises, Inc.*

# MFJ *Switching* Power Supplies

***Power your HF transceiver, 2 meter/440 MHz mobile/base and accessories with these new 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies! No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .***

**MFJ's** new adjustable voltage switching power supplies do it all! Power your HF or 2M/440 MHz radio and accessories.

**MFJ's** *MightyLites*™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere.

**No** more picking up and hauling around heavy, bulky supplies that can give you a painful backache, pulled muscle or hernia.

**MFJ's** 25 Amp *MightyLite*™ weighs just 3.7 lbs. -- that's *5 times lighter* than an equivalent conventional power supply. MFJ's 45 Amp is even more dramatic -- *8 times lighter* and weighs just 5.5 pounds!

***No RF hash!***

**These** babies are clean . . . Your buddies won't hear *any* RF hash on your signal! *None* in your receiver either!

**Some** competing switching power supplies generate objectionable RF hash in your transmitted and received signal.

**These** super clean MFJ *MightyLites*™ meet all FCC Class B regulations.

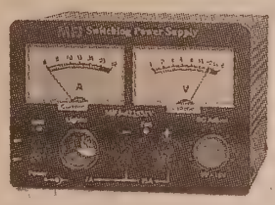
***Low Ripple . . . Highly Regulated***

**Less** than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.

***Fully Protected***

**You** won't burn up our power supplies!

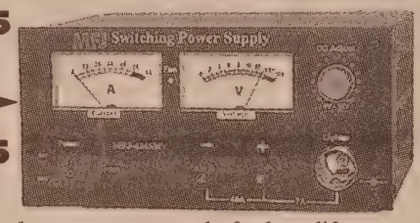
***No RF Hash!***



← MFJ-4225MV
25 Amp
**$149.95**
plus s&h

MFJ-4245MV →
45 Amp
**$199.95**
plus s&h

***No RF Hash!***



They are fully protected with Over Voltage and Over Current protection circuits.

***Worldwide Versatility***

**MFJ** *MightyLites*™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

***MightyLites™ . . . Mighty Features***

**Front-panel** control lets you vary output from 9 to 15 Volts DC.

**Front-panel** has easy access five-way binding posts for heavy duty use and cigarette lighter socket for mobile accessories. MFJ-4245MV has two sets of quick-connects on the rear for accessories.

**Brightly** illuminated 3 inch meters let you monitor load voltage and current.

**A** whisper quiet internal fan efficiently cools your power supply for long life.

***Two models to choose from . . .***

**MFJ-4225MV, $149.95.** 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures $5^3/_4$Wx$4^1/_2$Hx6D in.

**MFJ-4245MV, $199.95.** 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures $7^1/_2$Wx$4^3/_4$Hx9D in.

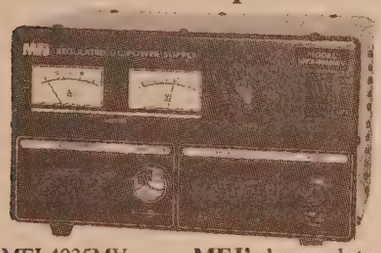
***NEW!* 25 Amp *MightyLite*™**

MFJ-4125
25 Amp
**$109.95**
plus s&h

**Super** light, super compact switching power supply delivers 25 Amps maximum/22 Amps continuous at 13.8 Volts DC. Low ripple, highly regulated. ***No RF Hash!*** Five-way binding posts for high current. Quick connects for accessories. Over voltage/current protection. 110 or 220 VAC operation. Meets FCC Class B regs. 2.86 lbs. $5^3/_4$Wx$2^1/_2$Hx$5^3/_4$D in.

## MFJ 35/30 Amp Adjustable Regulated DC Power Supply

***Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .***



MFJ-4035MV
**$149.95**
plus s&h

**MFJ's** heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

**A** massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

**It's** highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. *No RF hash* -- it's super clean!

**Fully** protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

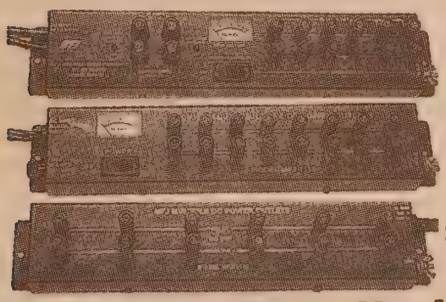
**You** get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel meters let you monitor voltage and current.

**Three** sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

**A** front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps components cool. $9^1/_2$Wx6Hx$9^3/_4$D inches.

## MFJ *High Current* Multiple DC Power Outlets

***Power two HF/VHF transceivers and six or more accessories from your 12 VDC power supply***



MFJ-1118
**$74.95**
plus s&h

MFJ-1116
**$49.95**
plus s&h

MFJ-1112
**$34.95**
plus s&h

***New!***
MFJ-1117
**$54.95**
plus s&h

**MFJ-1118, $74.95.** This is MFJ's most versatile and highest current *Deluxe Multiple DC Power Outlet.* Lets you power two HF and/or VHF transceivers and six or more accessories from your transceiver's main 12 VDC supply.

**Two** pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total.Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED indicator.

**Built-in** 0-25 VDC voltmeter. Six feet super heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. $12^1/_2$x$2^3/_4$x$2^1/_2$ in.

**MFJ-1116, $49.95.** Similar to MFJ-1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

**MFJ-1112, $34.95.** Similar to MFJ-1116. No on/off switch, LED, meter, fuse.

**NEW! MFJ-1117, $54.95.** For powering four HF /VHF radios (two at 35 Amps each and two at 35 Amps combined) simultaneously. Tiny 8x2x3 inches.

***Free MFJ Catalog***
***and Nearest Dealer . . . 800-647-1800***

***http://www.mfjenterprises.com***

• 1 Year *No Matter What*™ warranty • 30 day money back guarantee (less s/h) on orders direct from MFJ

**MFJ ENTERPRISES, INC.**
Box 494, Miss. State, MS 39762
(662) 323-5869; 8-4:30 CST, Mon.-Fri.
**FAX:** (662) 323-6551; **Add s/h**
**Tech Help:** (662) 323-0549

*Prices and specifications subject to change. (c) 2000 MFJ Enterprises, Inc.*

***All are protected by MFJ's famous No Matter What™ one year limited warranty.***

**Hams on The Big Ride at our stop in Sheridon, Wyoming. Bottom Row, left to right: Bob Brigham, AA5ZK; Don Moran, KØVII; Paul Leblond, KB1FIB; Mark Ewert, KB1ECH. Top row, left to right: Rick McCusker, WF6O; Dick Anderson, KE7A; Phil Detmer, KE6DSW; Charlie Vanderburg, KB1FIC and Rusty Burwell, N7LCC.**

# The Big Ride

**Rick McCusker, WF6O**

For the past three years, the American Lung Association has organized "The Big Ride Across America" to raise money for the fight against lung diseases. The ride consists of bicyclists who spend six weeks riding from Seattle, Washington to Washington, DC. Each rider gathered pledges prior to the ride, and the money goes to the ALA. Each year, the call goes out for Amateur Radio operators to assist with communications.

I first became aware of this event last year when our regular net control operator for the weekly Coast Guard net, Dick Anderson, KE7A, asked for help in running the net during his six week absence. Over the past year, Dick and I had numerous QSOs after the net and he encouraged me to participate. The timing was perfect with the publication schedule allowing me an opportunity to spend a week with the group.

Two months before the event, I mentioned to my wife that I was planning on participating in the Big Ride. She wasn't sure if she could get time off from work, but she encouraged me to go even if she couldn't. A week before I left, her vacation was approved and we eagerly set out on the evening of 26 June.

We headed east into Nevada and spent the first night in Sparks. After an early wake up call, it was off to the next nights' stop in Boise, Idaho. We caught up with the group at the University of Montana in Missoula.

We were not prepared for the scope of this operation. The ride moves from town to town every day, and it's like moving a small army. There were 203 riders, and more than 50 crew members. Then there's the support staff of truck drivers, cooks, maintenance people, bicycle mechanics, medical staff and all of us Hams.

Each rider and crew member provides their clothing and a small tent. Everything else was provided. And I do mean everything! There is a 40-ft. trailer carrying the riders' gear. Another 40-ft. trailer serves as a fully functional kitchen. Still another 40-ft. trailer has shower facilities, and another one has complete bathroom facilties. A generator truck supplies power for the camp and a refrigerated trailer carries the food and ice. Two 24-ft. rental trucks carried assorted items like the massive tents that served as the dining room at the overnight stops. A smaller rental truck pulls the mobile office trailer that contains administrative facilities and a complete Internet setup for the journey.

Amateur Radio facilities included dual band mobile radios installed in the rented vans that served as SAG wagons and support vehicles, two pickup trucks, and three of the rental trucks. Each of the Hams supplied their own HT's if they felt the need for them.

The big corporate sponsor this year was RadioShack. The support we had from the company was outstanding. Each and every rider and crew member on the Big Ride was given a Radio Shack FRS radio, batteries and a headset. These were not the $19.95 model —

HIGH SIERRA ANTENNAS
New mobile antennas
MODEL 1500
MODEL 1600
RV SPECIALS
$275
Price includes control panel and mounting hardware kits
For details, check out our web pages or request a copy of our all new brochure. Call our toll free number today:
1-888-273-3415
We can solve your mounting problems. Call
High Sierra Antennas, Box 2389
Nevada City, CA 95959 USA
Tel: 530-273-3415, fax: 530-273-7561
http://www.hsantennas.com/info
e-mail: cobler@hsantennas.com

"Specialist in RF Connectors and Coax"

| Part No. | Description | Price |
|---|---|---|
| PL-259/USA | UHF Male Phenolic, USA made | $ .75 |
| PL-259/AGT | UHF Male Silver Teflon, Gold Pin | 1.00 10/$9.00 |
| UG-21D/U | N Male RG-8, 213, 214 Delta | 3.25 |
| UG-21B/U | N Male RG-8, 213, 214 Kings | 5.00 |
| 9913/PIN | N Male Pin for 9913, 9086, 8214 Fits UG-21 D/U & UG-21 B/UN's | 1.50 |
| UG-21D/9913 | N Male for RG-8 with 9913 Pin | 4.00 |
| UG-21B/9913 | N Male for RG-8 with 9913 Pin | 6.00 |
| UG-146A/U | N Male to SO-239, Teflon USA | 7.50 |
| UG-83B/U | N Female to PL-259, Teflon USA | 7.50 |

The R.F. Connection
213 North Frederick Ave., #11 WR
Gaithersburg, MD 20877 • (301) 840-5477
800-783-2666 • FAX: (301) 869-3680
www.therfc.com
Complete Selection Of MIL-SPEC Coax. RF Connectors And Relays

Command Technologies, Inc.
Ham Radio's Big Signal Store
www.command1.com
800-736-0443
P.O. Box 7082 • Bryan, OH 43506



To subscribe call: 1-877-472-8643

On highway 237, east of Billings, Montana, a group of riders displays their patriotism on the 4th of July.

they were the top of the line! With a two mile range, riders and crew could easily converse with each other while on the road. RadioShack also supplied all of the Alinco DR-605 dual band mobiles, a TNC and antennas for all of the vehicles and the camp.

Riders came from all walks of life. We had students, teachers, physicians, lawyers, mechanics, truck drivers... you name it, they were there. Each of them had one goal in mind — raising money to fight lung disease and several carried photographs of loved ones suffering from lung diseases. Some riders had more experience than others and would finish the route by 1 p.m., and others would stop and smell the roses, take photographs and have a good time on the ride.

Each riding day began at 5 a.m. with the "zipper alarms" going off all over the camp. Breakfast was served at 5:30 and riders would start hitting the road at around 5:45 a.m. Since this was a benefit ride and not a race, riders could set their own pace. Each leg of the ride is anywhere from 50 to 115 miles, depending on the terrain. Difficult terrain dictated a shorter leg.

The route had anywhere from two to four water stops, and a check-in rest stop where the riders could take a break and grab a snack. Amateurs helped staff all of these stops. Hams also drove or assisted the drivers in the road managers van and the other vans assigned to patrol the route to assist the riders in case of trouble.

Before the last rider left camp, the camp would be broken down by the camp crew, and they would leap-frog ahead of the riders to set up the next camp. To insure rider safety, the trucks in the camp convoy would be routed over a different route when possible.

Amateur Radio played a very important part with communications. Business band radios were rented for the ride and were used by the managers for communciations around the camp, but were generally useless more than a mile from each other. Cellular phones were popular, but coverage was very limited. Because the ride goes through some pretty desolate country, repeaters were few and far between. When repeaters were available they were utilized almost exclusively. Repeater owners had been contacted ahead of time by Dick, KE7A,


*Need Ham Radio Equipment Insurance?*
**HRIA**
www.hamradioinsurance.com
**800-545-8881**
P.O. Box 201 • Canonsburg, PA 15317



Repair most ICOM Radios.

Specialize in HF, VHF, UHF, Marine, Radar, Repeater

COMTEK
26611 HWY 3 NW
Poulsbo, WA 98370

(360) 779-9730 w7jv@aol.com

# Know Your Zulu

**24-hour Navigator™ Watch by haverhills with linked metal band only $49^{95}$* + $2^{00}$ S&H**

Wear this watch to work, to play, to swim and dive. The Navigator Watch is steered by a sophisticated Japanese quartz movement that is powered by a tiny silver-oxide cell. It should last at least 18 months before you need to replace it.

The Navigator has both luminous analog dial and LCD display. It gives you dual time capability. The LCD display shows time continually — in 12-hour or 24-hour mode. Push the button and you display day and date. There is a subtle yet insistent alarm and a switchable hourly time signal. The stopwatch/ chronograph reads to 1/100 secs and has "interrupt" and "lap" mode. A light switch illuminates the display. The Navigator Watch is available in black metal execution, with linked black metal band and silvertone (stainless steel execution, with linked, sivertone metal band). Both models are water resistant to 150ft. The crystal is "mineral glass" — it is virtually scratch-proof.

For fastest service, order with credit card 916/457-3655 or by fax 916/457-7339. If you prefer check or money order, write to us at

**Worldradio**
2120 28th Street
Sacramento, CA 95818
*CA residents please include $3.87 tax.

YOUR FAVORITE RECEIVER KIT IS BACK!
*The OCR*, an Optically Coupled Regen, is an all-mode (AM CW & SSB) 40 M receiver. Excellent selectivity & stability. Easy to assemble. (See QST JUNE 98) ..... $92.45 PP
ANTENNAS: UHF & VHF | SMART BATTERY CONTROLLERS: AC or SOLAR 110/220 FROM 1 AMP TO 6
Code Practice Oscillator (see Now You're Talking ) .... $23.45 PP
SEND FOR FREE CATALOG
Check monthly specials on www.jadeprod.com/
1-800 JADE PRO (523-3776)
JADE PRODUCTS INC. E. HAMPSTEAD NH 03826-0368

TiCK Keyers
EMBEDDED RESEARCH
PO BOX 92492
ROCHESTER, NY 14692
http://www.frontiernet.net/~embres
embres@frontiernet.net
send SASE for catalog

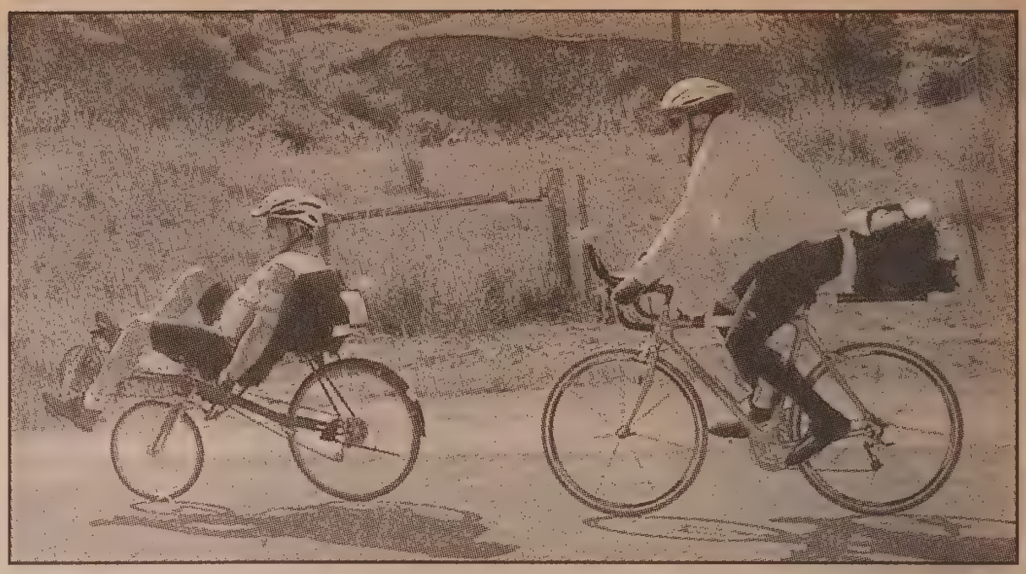
Communicated by Wireless – Amateur, Military or Commercial 40 years ago?
JOIN THE OLD OLD TIMERS CLUB INC.
3191 Darvany Dr. • Dallas, TX 75220
(214) 352-4743 http://users.ticnet.com/ootc/
ootc@ticnet.com Init: $5 & $10 per yr.

MARS, RACES, SKYWARN, CD, PATCHES, DECALS, CAPS
Custom Name—Call Caps & more.
Call or write for catalog sheets & full color photo.
CAPS, Unlimited • (972) 276-0413
P.O. Box 460118A • Garland, TX 75046
e-mail: k5hgl@home.com
www.skywarnsupply.com

MOBILE HAMS-STOP SWR & VEHICLE NOISES IN MINUTES
INCREASE POWER-LOW COST
Sale Safe Co. 1-800-479-0889
8720 Fairway, Leawood , KS 66206
E-MAIL– WØBC@QNI.COM
www.Looknbrowse.com/bcmatcher

THE BIG DK-DX
Don Johnson, W6AAQ's
3.5 — 30 MHz mobile antenna, manufactured by:
H. Stewart Designs
P.O. Box 643 • Oregon City, OR 97045
(503) 654-3350
See *Worldradio*, Oct. 1994 issue.

HI-PERFORMANCE DIPOLES
MPD-5
Antennas that work! Custom assembled to your center freq. ea. band - advise ht. of center and each end - hang as inverted "V" - horizontal, vert dipole, sloping dipole - commercial quality - stainless hardware - legal power - no-trap, high-efficiency design. Personal check, MO or C.O.D.
MPD-5* 80-40-20-15-10M Max-Performance Dipole, 87' or 78' long ..... = $125
MPD-2* 80-40M Max-Performance Dipole, 85' long = $77, .... 105' long... = $ 83
MPD-3712 30-17-12M Max-Performance Dipole, 31 ft. long ..... = $ 80
HPD-3* 160-80-40M Hi-Performance Dipole, select 113 ft. or 125 ft..... = $ 95
SSD-6 160-80-40-20-15-10M Space-Saver Dipole, 71 ft.long ..... = $179
SSD-5* 80-40-20-15-10M .....42' long = $125, .....60 ft. long ..... = $130
*Tunes 9-Bands with Wide-Matching-Range-Tuner. S&H PER ANTENNA = $7.00
(2) Stamp SASE for 30 Dipoles, Slopers, & Unique Antennas Catalogue.
W9INN ANTENNAS
BOX 393 • MT. PROSPECT, IL 60056 • PHONE: (847) 394-3414



the communications director and permission was obtained to use the machines on particular dates as the ride progressed across the country.

There were some stretches through Montana and Wyoming where we had to use a simplex frequency to maintain contact. Because we were anywhere from 5-20 miles apart, relaying messages from one point to the other through the rolling hills was common. Messages ranged from keeping track of the lead riders and the "caboose" rider, to getting in touch with the medical staff for a problem. Mostly routine traffic, but there were some exciting moments.

On the stretch from Townsend to Harlowtown, Montana, thunderstorms threatened throughout the afternoon. With 20 riders still on the road, the thunderstorms arrived with a vengeance — horizontal rain and lightning strikes in the vicinity. The road manager, who happened to be Charlie Vanderburg, KB1FIC, made the decision to get the riders off the road and into the vans. Because they were the tallest feature on the road and riding a metal bicycle, it became a safety issue to protect the riders. The word was passed by simplex (no repeaters out there) and every rider was in some kind of shelter within a very short period of time. Additional staff came back on the road with vans and pickups to assist with gathering the riders and the bicycles and getting them into Harlowtown.

The camp at Harlowtown was set up on the athletic field at the local high school, so staff and riders were getting very, very wet. A local lodge in a parking lot next to the field was being used for a 50th wedding anniversary party, and the hosts opened the doors for us to get in out of the rain and wind. The party grew by about 400%, and a good time was had by all.

The Amateur Radio operators all had a specific job to do, and we did it with an air of professionalism. In fact, some of the Hams were staff members at the ALA headquarters when the ride began three years ago and were impressed with our capabilities, so they studied and obtained their licenses!

Evenings were a time to celebrate the completion of each leg with a good meal and some entertainment. A couple of days before our stop in Sheridan, Wyoming, the staff announced there would be a "talent" show when we camped at the fairgrounds in Sheridan. It was later changed to a "variety" show when the staff realized there wasn't much "talent" in the group — other than riding bicycles!

Most of the Amateur Radio operators stayed with the group for a week or two, and some of the lucky ones stayed for the entire ride. We spent a week with the Big Ride and had to leave the group to head home after our overnight stop in Sheridan. That left the group short of amateurs until they reached Rapid City, South Dakota.

The Hams participating with the Big Ride were Bernie Basel, K3BAZ; Bill Schrader, W7QMU; Judy Schrader, KA7OFM; Don Moran, KØVII; Mark Erbaugh, N8ME; Mark Ewert, KB1ECH; Ric Lods, AL7DH; Russell Burwell, N7LCC; Vernon Goble, KFØUM; Charlie Vanderburg, KB1FIC; Paul Leblond, KB1FIB; Dick Anderson, KE7A and Rick McCusker, WF6O. Riding Hams were Phil Detmer, KE6DSW and Bob Brigham, AA5ZK. Charlie, Paul and Mark Ewert are members of the staff at ALA headquarters in Portland, ME.

Was it fun? You bet it was. We had a terriffic time and hated to leave. Plans are being made for the next Big Ride, so if you are interested check the Big Ride web site at www.bigride.com for updates.



To subscribe call: 1-877-472-8643

# Work the World With Alinco!

*Base, mobile, portable or marine, Alinco HF transceivers open a world of possibilities at prices that are down to earth. Check out this great equipment and the low Alinco price at your favorite dealer!*

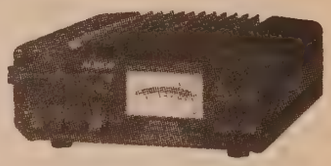
## DX-70TH HF+6m

***Mobile/Base/Portable***

***Rugged and versatile, DX-70 radios are recognized around the world as proven performers!***

160m ~ 6m Amateur Band TX in all modes, general coverage RX 150 KHz ~ 30 MHz and 50 ~ 54 MHz, 2 VFOs, 100 memories, removable face for remote mounting, speech compressor, SSB, CW and AM narrow filters, full, semi or automatic break-in, multi-function control, RIT, TXIT, easy split operation, RF gain, CTCSS for 10 and 6m repeaters. 100w output on both HF and 6m.

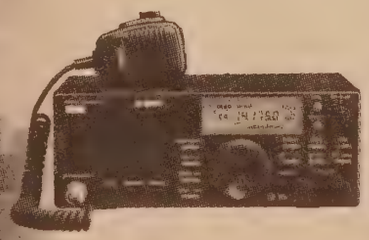
## DM-330MV Communications Grade Switching Power Supply



Tiny, powerful, 30A continuous, 32A peak output, weighs less than 5 lbs! Variable output 5 ~ 15 VDC, memory output, rear panel high-current (30A) terminals, triple circuit protection, illuminated V/A meter, ultra-quiet with patent-pending noise-shift circuit. Front panel cigar (10A) and quick-connect (5A) terminals, ripple less than 15mV p-p. Perfect for travel, station or test bench use. There's no switching supply like it! **Also available: DM-340MV IC Regulated Power Supply.**

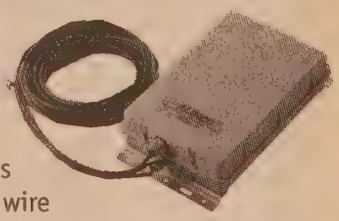
## DX-77T HF Desktop Transceiver

***It's the radio Amateurs asked us to build!***



A super performer at a tiny price, the DX-77T has solid credentials and great reviews. 160 ~ 10m Amateur Band TX in all modes, general coverage RX 500 KHz ~ 30 MHz, 2 VFOs, internal keyer (6 ~ 50 wpm), 100 memories, 13.8 VDC input, optional computer control capability, CTCSS encoder (front panel programmable), RIT, easy split operation, speech compressor, selectable AGC, large front panel speaker. The value leader in HF desktop radios!

## EDX-2 Automatic Wire Antenna Tuner



Quickly tune wire antenna (from 8 to 80 feet) for any band from 10 through 160 meters (minimum 40 foot wire antenna required for 160 meter use). Perfect for base, mobile or marine use. Plugs directly into Alinco DX-70 and DX-77 transceivers. You don't have to pay more for great performance!

**Simple ▪ Clean ▪ Dependable**

**ALINCO®**

***AMATEUR RADIO'S VALUE LEADER℠***

**U.S.A. Alinco Branch: 438 Amapola Ave. • Suite 130 • Torrance, CA 90501**
**Phone: (310) 618-8616 • Fax: (310) 618-8758 • Internet: http: //www.alinco.com**

Specifications subject to change without notice or obligation. Performance specifications only apply to Amateur Bands. Transceivers intended for use only by properly licensed Amateur Radio operators.

# Contesting and DX forums

Armond Noble, N6WR

## Report from Dayton

It costs $22 to spend three days at the Dayton Hamvention. True blue DXers and contesters got their money's worth in the one full day devoted to contesting and DXing.

The contest moderator was Steve Bolia, N8BJQ, manager of *CQ* magazine's WPX Contest.

First up was Jim Moore, WU3V, who gave a cluster update. All you ever wanted to know about nodes, it was the whole skinny on spots.

Next, Mike Goode, N9NS, presented a slide show about FOØAAA. One can not help being greatly impressed with the staggering amount of organization for such a trip. This is not Field Day. If you forget something, the nearest store is 1,642 miles away and it's many days away at eight knots per hour.

The slides showed that this was exactly 180 degrees from a check-into-a-resort Caribbean DXpedition. Even though it was shivering cold at night, the hardy crew from Clipperton handed out more than 75,000 QSOs.

Next was Mats Persson, SM7PKK, and DXpeditions to T31 and ZK3. Hey, if your idea of roughing it is an air-conditioned motor home with 807s in the refrigerator and sleeping on a thick mattress in your silk pajamas, this is not for you. This is right on the equator. Warm.

Mats got a laugh showing packages of "noodles, noodles and more noodles. I haven't eaten noodles since."

Their antennas were Force 12 Yagis in special carrying cases and a Butternut vertical.

Charles Harpole, K4VUD, had, as many do, good words for Singapore Airlines as he recounted his adventures as 9N1UD in Nepal. He had no trouble with customs (different from many countries) as he took in a Force 12 C4 Yagi donated by the Northern California DX Foundation. The antenna was given to 9N1AA. All the Ham gear in Nepal is donated, as no one there can afford today's equipment. Plus, there is a two- to three-times-the-price customs duty. Many U.S. Hams are donating brand new transceivers and accessories. Coax and connectors are not available in Nepal.

**John Crovelli, W2GV/P4ØW, (QRP World Record WW CW 1999) and Ward Silver, NØAX, (Oceania record holder in WW and ARRL CW) explained how to have fun with flashlight power.**

Harpole showed pictures of a nice home he stayed in. Rent was $100 a month, which included a visiting maid. He also presented slides of Laos and Thailand.

Intrepid DXpeditioner Extraordinaire Wayne Mills, N7NG, (who recently joined the ARRL staff as head of Membership Services) presented the new country of Chesterfield Islands, TXØDX. If you get seasick easily, this is not the trip for you.

## Why contribute to a DXpedition?

When you read that DXpeditions "will accept donations" here's why. There wasn't a ship in New Caledonia that was big enough to transport the crew and all the equipment to Chesterfield.

So, they had to rent a ship in Australia. But, since the government said that a ship going to Chesterfield had to start out in New Caledonia, the trip was longer than it should have been. We're talking serious money here.

Chesterfield is 500 meters by 35 meters. For the first three nights the crew slept about two hours a night. They faced 40-knot winds. One antenna was a Comtec four-square for 20 Meters that they said was superior to a tri-bander that's not up very high. Mills emphasized the importance of the "pilots" who were a great help from their home stations. On the return trip 14-foot waves buffeted the ship for 30 straight hours.

One of the "pilots," William Avery, Jr., K6GNX, told the audience that since this was typhoon season a close eye was kept on the Pacific weather maps in order to give warnings to the DXpedition. As it was, the operators quit a day earlier than planned or the seas would have been too rough to get back to the ship offshore.

Martin Atherton, G3ZAY, was on hand for the IOTA buffs. He gave an update on changes in the Islands On The Air program. A new directory is out and is will be available from the ARRL and the RSGB. For more information on IOTA you may go to http://www.rsgbiota.org.

Glenn Johnson, WØGJ, narrated a

LOW PROFILE HF ANTENNAS
*THAT REALLY WORK!*
"Work the World Without Working Up the Neighborhood"
ISOTRON
BILAL COMPANY
Call for a FREE Catalog:
719/687-0650
137 Manchester Dr.
Florissant, CO 80816
www.rayfield.net/isotron
VISA

"KACHINA"
THE $4000 HF TRANSCEIVER
AT ALMOST HALF THE PRICE
SEE: www.kachinaradio.com
ORDERS: 800-333-9041
M&S COMPUTER PRODUCTS
661 Myrtle Ave. ¥Boonton, NJ 07005



To subscribe call: 1-877-472-8643

slide show on Bhutan. QSL cards from this operation were available at the Hamvention.

Future DXpeditioners sitting in the audience felt a twinge when they heard that visas for Bhutan were $200 PER DAY! Each person was limited to only 20kg of luggage and even with many other difficulties they were able to hand out 82,087 contacts to the deserving 26,600 different stations. And that was with a government-imposed power limit of 120W! (Only one other DXpedition has ever made more contacts — ZL9CI with 96,004.)

Definition of a DXpedition is putting up a 40M vertical while fighting 40 mph winds, as the Bhutan slides showed. Bob Allphin, K4UUE, did a show featuring the country and the gentle people of Bhutan. These trips are not a "walk in the park," as he experienced a two-day bout with illness.

*QST DX* Editor Bernie McClenney, W3UR, (also Editor of *The Daily DX*) showed his 4W/W3UR operation from the penthouse suite of a five-star Hilton. So as not to slow down his rate, the tuxedoed room service waiters would put the caviar on the crackers for him. *(HA! HA! just kidding, Bernie.)*

Actually these guys are the Indiana Joneses of Amateur Radio.

Talk about desolation, devastation and destruction! You've heard the term "third world nation." East Timor is the fourth world. The pictures were graphic, indeed.

What did McClenney go through in order to give 9,191 QSOs to 6,543 operators eager to work 4W? Several hundred dollars in excess baggage charge for the short (last leg) flight into East Timor. From the time he took off from the U.S. to the time he landed in East Timor, 41 hours had elapsed.

It almost seems as if attendance at these presentations should be mandatory so the QSL card recipients would be truly aware of the ordeals endured by the DXpedition operators.

## Contesting Forum

After a lunch at the high school auditorium where the forum took place, it was an afternoon on contesting, moderated by Doug Grant, K1DG.

First up was Paul Young, K1XM, who went to Honiara, Guadalcanal, for the *CQ* WW CW Contest. He showed pictures of destroyed tanks and crashed planes still there from one of the biggest battles of WWII.

His antennas were an HF2W with 160M kit and a W9INN dipole for 30, 17 and 12M. He used a G4ZPY paddle

**The not-so-easy job of keeping a many-speaker forum on DX running on time was performed by Steve Bollia, N8BJQ.**

for CW and the WriteLog for RTTY. Everything fit into a golf club carrying case. Using four gigabits he did audio copying of the entire contest.

The transceiver suffered a fall that destroyed the dial mechanism. But, with WriteLog he could change bands and with the hand-held microphone could go up and down the bands. With RIT he could go split.

Young mentioned that the license cost four dollars and you can pick your call sign. Problems in Paradise? Well, a power outage was scheduled for the first four hours of the contest! So he rented a generator.....which wouldn't start. HELP! His first contact was at 0017Z. Among his accomplishments (low power) were working 8P9Z at 9,800 miles and CN8WW at 10,600 miles on five bands.

He then presented a fascinating discussion of post-contest log analysis.

A point was that if he wasn't quite sure if he worked someone he would put him in the log because, "my mistake should not penalize others."


**WIRE/CABLE** Multi-Band AERIALS. Comrc/marine, insulators, baluns. "FLEX-WEAVE"™ hybrid, "Cadillac" aerial wire: 168 strand cop, bare or U.V. PVC, $.14/ft. avg. 8X, RG213, RG8 w/U.V. NONCONTAM. LOW PRICES. "BURY-FLEX"™ LOW LOSS flex/bury cable $.57/ft. avg. (Why pay more for flex LMR?) **LMR 400: 53/ft. Ladder Line.**

**ROPE ROPE ROPE:** ANTENNA/TOWER SUPPORTS: WHY RISK COSTLY FAILURES? DACRON **DOUBLE** braided, $.06/.11/.16 for 3/32"; 3/16"; 5/16". 1,000 ft. discounts. **Full Satisfaction Gty.** FRIENDLY SERVICE. Dealers welcome. QUALITY prevents costly failure & replacements.

DAVIS RF CO.
P.O. Box 730
Carlisle, MA 01741
DAVIS RF

24-HOUR ORDERS:
1-800-328-4773
TECH/INFO:
1-978-369-1738
http://www.davisRF.com
(Commercial wire/cable call our 800 #)


Then a pair of the best QRPers around, John Crovelli, W2GD and Ward Silver, NØAX, (both holders of world records) gave some reasons for contesting with only five watts. "No TVI and you don't have to lug heavy amplifiers through airports." They explained that QRP is only two S-units below 100W.

Advice included, "Call CQ, and the multipliers will come. Use standard phonetics. Follow the gray line." They went into detail on using two radios on the same band. One for CQing and the other for Search and Pounce. Your antennas should be separated by 50 to 100 feet and aimed in opposite directions. For QRpers it's "Do Battle" and you'll find it "challenging and fun."

Pat Barkey, N9RV, spoke on the "Keys To Contest Success".

They are: preparation, strategy and decisions, propagation and operating ability. He said the important factors were hearing, reaction time, coordination, enunciation, typing ability and CW sending and receiving.

He advocated the use of CW memory keyers, filters, directional antennas and digital voice keyers. In order to maximize efficiency he recommended using the complete call sign, establishing a rhythm, be professional, not repeating information needlessly and trying for no "dead time."

## Faster rates

To run at a faster rate Barkey said you have to be prepared for the contest. Recognize and respond to complete call signs and your rate will go up significantly. He said focus your attention at the end of each CQ. Have your hands on the keyboard, RIT cleared and filters wide. Master the mechanical skills and learn to type, to send use your contest software without delay. Evaluate yourself and join a serious multi-op effort. And, "listen to how the great ones do it."

There were three more sessions scheduled featuring John Dorr, K1AR, and Bill Fisher, W4AN, Dick Norton, N6AA, and Gerd Richter, DJ5IW-CN8WW. But, sadly, with reluctance, your reporter had to leave due to another commitment.

The DX and Contesting forums were so inspirational that a Yaesu FT-100, 100W transceiver in a box six inches, by two inches by eight inches was purchased from HRO at the Hamvention the next day. This highly compact new rig from Yaesu is the perfect solution for avoiding excess weight charges while traveling on airlines. It's about the size of a dual-band mobile, but covers all of the HF bands.

# Special Events

## BRISTOL MOTOR SPEEDWAY

The Bristol, Tennessee ARC will operate special event station W4B 0001-2359UTC, 21 Aug, to celebrate the 39th anniversary of the Bristol Motor Speedway and the 52nd anniversary of NASCAR. Suggested frequencies are 3.860, 7.245, 14.237, 21.305 and 28.310 MHz. Local 2-meter repeaters (146.76 and 147.000) will be used for special event contacts during Bristol Speed week, including the "Food City 250" on 25 Aug., and the "goracing.com 500" 26 Aug. For certificate: QSL card and SASE #10 or larger, to: William Price, 232 Cherry St. Blountville, TN., 37617.

## CALIFORNIA STATE FAIR

The River City ARCS and the Sierra Foothills ARC will be operating special event station W6F from the California State Fair in Sacramento from 1700UTC 31 August to 0500 01 September. Suggested frequencies are 7.250, 14.245, 21.350, 28.450 MHz. Simplex frequencies are 147.555 and 446.000MHz. Certificates for contact and all amateurs visiting the booth. For a certificate, send your QSL and a #10 SASE to Patrick Schamun, N6PBM, 8009 Hartwick Way, Sacramento, CA 95828-4220.

## INTERNATIONAL LIGHTHOUSE/LIGHTSHIP WEEKEND

The Fox River Radio League will operate special event station W9CEQ 1500UTC 19 August to 220UTC 20 August during International Lighthouse/ Lightship Weekend at Fabyan Island Lighthouse (IL-032R). Suggested frequencies are 7.250, 14.250 and 28.450 MHz. Certificates are available by sending your QSL and a SASE to: FRRL, P.O. Box 673, Batavia, IL 60510.

•

United Radio Amateur Club will operate special event station K6AA from the Point Fermin Lighthouse 0001UTC 19 August to 2359UTC 20 August during International Lighthouse/Lightship weekend. Suggested frequencies are: 3.873, 7.273, 14.273 18.137, 21.373, 24.937, 28.373, 50.137 MHz, and 144.237 USB and 145.520 FM. For a certificate send your QSL and a 5 X 7 SASE to Doug Dowds, WB6ROH, 415 E. 238th St. Carson, CA 90745-5810.

## 25th ANNIVERSARY

The Schaumburg ARC will be operating special event station N9RJV from Barrington, Illinois, to celebrate the club's 25th anniversary. Operation will begin on 20 August starting at 1300UTC. All HF bands and 2-meter simplex will be used. Certificates are available by sending a #10 SASE and your QSL card to: 25th Anniversary, Schaumburg ARC, P.O. Box 68251, Schaumburg, IL 60168-0251, or by e-mail to Allan Roswarne, N9SQT, at: n9sqt@postoffice.att.net.

## SHEEPDOG TRIALS

The Hidden Valleys ARC will be operating special event station K9S (canine sheep) during the 15th annual national points Platteville Sheepdog Trials, in Platteville, Wisconsin 1500-2200UTC 02/03 September. Suggested frequencies are the General Class portions of the phone and CW bands plus VHF. For a certificate send your QSL card and a 9 X 12 SASE to HVARC, P.O. Box 112, Platteville, WI 53818-0112.


CAPTURE IMAGES LIKE THIS DIRECTLY FROM SPACE ON YOUR PC!

- Internal Systems and Portable, External (Parallel Port) Systems Available for IBM Compatibles.
- Capture Full Satellite Resolution (2-3 Miles with NOAA Satellites!) with Either System.
- Professional Software with "Point and Click" User Interface, Mouse Support, Satellite Tracking, Zoom, GIF and Binary Output, False Colorization, Printer Support, Gridding, IR Temperature Calibration, Animation, Much More...
- PLL Circuitry Automatically Provides Ruler Straight Images. No Complicated Timing Settings Required.
- Simple Antenna Used for NOAA and Meteor Satellites. NO Dish Required.
- SVGA to 1024x768x256.
- Receive High Resolution Images from NOAA, Meteor (Russia), GOES, and Meteosat Satellites, and HF Fax.
- Receivers, Antennas, Downconverters, and Feedhorns also Available Separately or in Complete Systems.
- Internal Demodulator with Software only $289. Multi-FAX Programmable Satellite Receiver: Just $249!
- Call, Write, or Fax for Complete Information. Download the above and dozens of other images (as well as software and current orbital elements) from our home page at www.multi-fax.com

MultiFAX® 30 Steele Road Victor, NY 14564

Voice: 716-425-8759(BBS after 5PM) Fax: 716-223-6198


# Silent Keys

## DEWEY WILSON, W7HF

An avid Amateur Radio enthusiast since 1913, Dewey Wilson, W7HF, died 09 July at the grand old age of 102.. He was first licensed in 1913 with the call sign "GW." His favorite band was the 80-meter band, and he had friends all over the world including numerous contacts with the late Senator Barry Goldwater. Mr. Wilson was active in several organizations and was a long time member of the Grays Harbor Amateur Radio Club. — *KH6COY*

## LOU VARNEY, G5RV

The inventor of one of the most popular wire antennas in Amateur Radio, Lou Varney, G5RV died June 28. Mr. Varney first developed the antenna in 1966, and word soon spread with an article appearing in the *RSGB Bulletin*. A believer in his own design, Mr. Varney used a full size and a double size at his home station. He remained active until recently on the HF bands with regular QSO's with his friends. Mr. Varney was Life President of the Mid-Sussex ARS and was a member of the RSGB for 74 years.

## CLARK L. ROGERS, K4BGN

A U.S. Navy veteran of WWII, Clark L. Rogers, K4BGN, of North Charleston, NC has died. He served aboard the U.S.S. Roper during the war with the rank of Lieutenant (jg). He was a retired electronics engineer, educated at Peru State Teachers college in Peru, Nebraska and received his masters degree from Columbia University in New York.

## GEORGE B. KABROTH, W3PLI

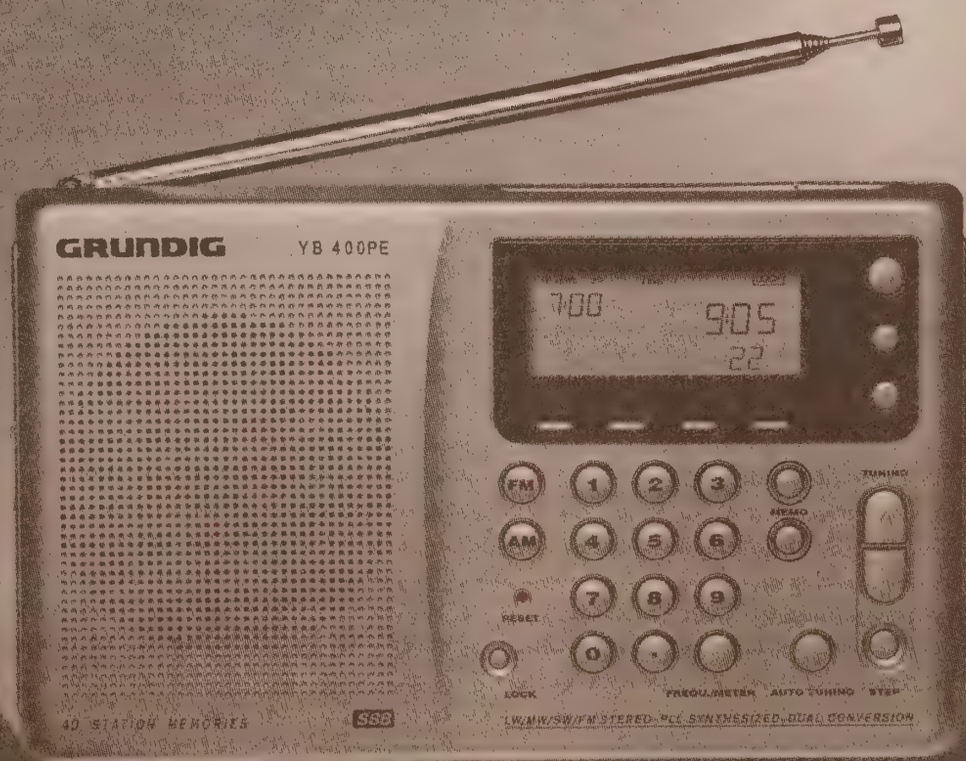
An Amateur Radio operator since he was 12 years old, George Kabroth, W3PLI, died 27 March. Mr. Kabroth had been active working with the Red Cross as a communications volunteer and helping with communications with the Persion Gulf region.



To subscribe call: 1-877-472-8643

PROFESSIONAL SERIES

# Travel the globe, listen to the world




## GRUNDIG YB 400PE

## The most powerful compact radio ever made.

Now with a high-tech titanium look! The Grundig YB 400 Professional Edition has power to scan and lock on to even the weakest shortwave signals with rock-solid digital precision. Power to pull FM stereo (with earphones) and favorite AM news, sports and talk shows. Power to please with crystal-clear, German-engineered Grundig sound. Packed with features like autoscan digital tuning to hear news in English anywhere in the world. SSB reception of ham radio, aviation, and ship-to-shore. Dual digital clocks with radio and beeper alarm. Built-in easel stand. Gift-boxed with deluxe travel pouch, stereo earphones, external antenna, even a nine volt AC adapter. Enjoy at home and abroad. Order yours today. Size: 7.75" L x 4.5" H x 1.5" W. Weighs only 21 ounces. Grundig offers a 30-day money-back refund of the purchase price, exclusive of shipping and handling, and a one-year warranty.

### The Grundig YB 400PE

FM Stereo / AM / Worldwide Shortwave

To order, CALL TOLL-FREE: **1-800-793-6542**, Ext. WR1

Please send _____ Grundig YB 400PE Radio(s)

☐ VISA ☐ MasterCard ☐ Discover ☐ American Express

☐ Instead, I enclose a check for $199.95 plus $10 shipping and handling, a total of $209.95 for each radio.*

* CA orders add 8.25% sales tax. Canadian orders 7% GST. Payment in US$. Credit cards: applicable sales tax will be billed with shipment. Allow 2-4 weeks for shipment. International orders: please fax 1-650-361-1724 for shipping and handling.

Credit Card No. _____ (please print clearly) Expiration Date _____

Name _____

Street address _____

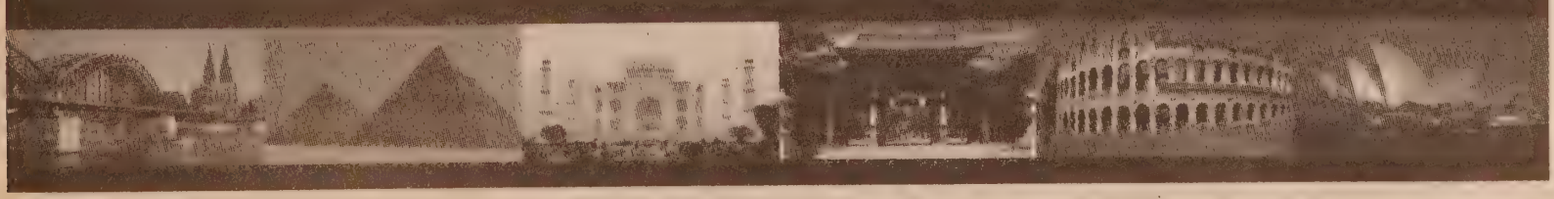
City _____ State _____ Zip _____

Signature _____

Daytime phone (_____)_____-_____

We cannot ship to a P.O. Box.

Grundig Direct / P.O. Box 2185 • Menlo Park, CA 94026



## 100 Nations Award

In an effort to encourage personal communications among peoples around the world via Amateur Radio, ***Worldradio*** offers the Worked 100 Nations Award to those confirming two-way amateur communications with permanent stations in 100 distinct countries having a permanent, native population.

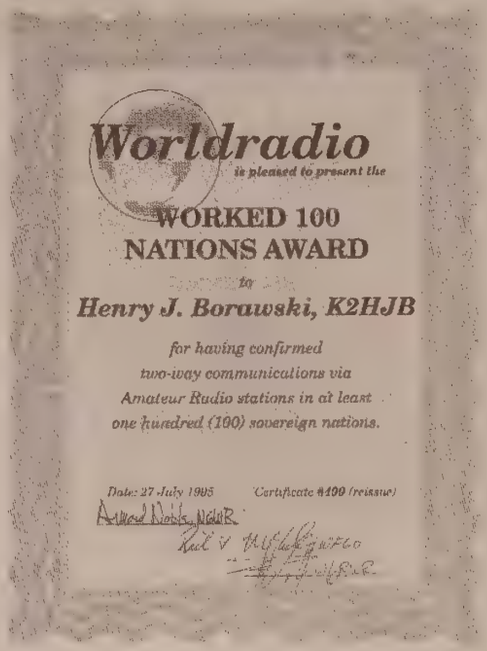
The purpose of the ***Worldradio*** Worked 100 Nations Award is to demonstrate the unique opportunity Amateur Radio offers for communications between international borders to further worldwide understanding.

The W-100-N is not a radio sport award as such, but a token of achievement in communication. At the same time, it offers all Amateur Radio enthusiasts several features not found in other awards.

1. W-100-N virtually eliminates the need to work geographic areas heard only during DXpeditions. Almost all national entities have amateur stations consistently on the air.

2. W-100-N, then, will be of perennial interest. The advantage to those stations having worked a national entity long absent from the air will be minimal.

3. W-100-N is difficult to achieve, yet is within reach of all moderately well-equipped stations whose operators utilize good communication skills.


Worldradio
is pleased to present the
WORKED 100
NATIONS AWARD
to
Henry J. Borawski, K2HJB
for having confirmed
two-way communications via
Amateur Radio stations in at least
one hundred (100) sovereign nations.
Date: 27 July 1995 Certificate #100 (reissue)

### Rules

1. The Worked 100 Nations Award is available to any licensed Amateur Radio operator who can prove confirmation of two-way communications with government-authorized Amateur Radio stations in at least 100 different nations of the world.

2. No contacts with stations using reciprocal calls will count toward this award, such as N6JM/UL7.

3. All contacts must be with land-based stations. Contacts with ships, at anchor or otherwise, and aircraft cannot be considered.

4. All contacts shall be made from the same country.

5. Only contacts made on or after 01 January 1978 will count.

6. The application shall include the following:

a. Letter requesting W-100-N.

b. List of contacts in alphabetical order by prefix showing nation, station call, date, band and mode.

c. A signed statement by two other licensed radio amateurs, General class or above that they have inspected the required QSL cards.

d. A fee of $5 to cover the cost of the award.

7. All applications and requests shall be addressed to:

W-100-N Award Manager
***Worldradio***
2120 28th Street
Sacramento, CA 95818

8. There are no special endorsements to this award; however, endorsements may be made if the achievement bears such recognition. All modes and bands may be used.

Upon approval of an application for W-100-N, a certificate will be issued and the issuance of the award will be noted in a future issue of ***Worldradio***.


VLF CONVERTER

- Receives the entire 10 KHz to 500 KHz VLF band.
- Converts VLF to shortwave.
- Works with any shortwave receiver that has external antenna terminals.

Now you can hear the 1750 meter band, navigation beacon band, WWVB standard frequency broadcasts, ship-to-shore communications, and the European low frequency broadcast band just by tuning across 80 meters shortwave.

Connects between antenna and receiver. Turn it on and hear VLF; turn if off and hear normal shortwave signals.

Model VLF-A converts to 3510-4000 KHz or Model VLF-S converts to 4010-4500 KHz $89.95 + $6 shipping/handling U.S. & Canada. Requires 9V battery (not supplied). Calif. residents add sales tax.

VISA MasterCard

Send for FREE catalog that shows our complete line of antennas, filters, preamplifiers and converters.

PALOMAR
BOX 462222 • ESCONDIDO, CA 92046
(760) 747-3343 • FAX: (760) 747-3346
e-mail: Palomar@compuserve.com
www.Palomar-Engineers.com



W7FG
Vintage Manuals
Over 350 Manufacturers and more than 5000 Manuals!
Radio, Test Equip., Audio
FREE CATALOG
VISA MasterCard
(800) 807-6146
www.w7fg.com
402731 West 2155 Drive
Bartlesville, OK 74006

True Ladder Line
• Nominal Impedance – 600 OHMs • Spreaders – Light Weight, Low Wind-Loading & Long Life • Wire – 16-Gauge, 26-Strand, 100% Copper • One conductor from equipment to far-end antenna insulator (supplied) • No Splices • 100 ft. of Ladder Line with each Doublet Antenna

160-10 Meter Doublet Antenna . . .$74
160-10 Meter Kit (unassembled) . . . . .$57
80-10 Meter Doublet Antenna . . . .$60
80-10 Meter Kit (unassembled) . . . . . .$48
40-10 Meter Doublet Antenna . . . .$52
40-10 Meter Kit (unassembled) . . . . . .$41
100 ft. of Ladder Line Only . . . . . .$40
100 ft. Ladder Line Kit (unassembled) $32

(800) 807-6146
www.w7fg.com

To subscribe call: 1-877-472-8643

## Dumbing down...

Jim Lucas's (ex W3JIM) letter in the August ***Worldradio***, smacks of the proverbial spoiled brat, that "takes his ball and goes home" when he can't have his own way. Only a true egotist would indiscriminately sling such derogatory comments as the "DUMBING DOWN" and "those dummies" at people he has never had any contact with. I believe Amateur Radio is better off, now that he has finally "taken his ball and gone home." It took a few years for me to do it, but I am proud to have that piece of paper with "AMATEUR EXTRA" on it.

**Rich Medhurst, K6BFO**
**San Diego, Ca.**

Sir;

I very much resent your crude remarks!! If you're tired of Ham radio by all means get out.

If you were'nt so busy blowing your own horn, you might have noticed ones ability to do 20 wpm does not make one a better Ham!! If you don't believe me just listen to some of the trash on the bands. And it's not the result of the codeless technician. Or the new rules that the majority of Hams voted for.

I truly hope you have the smarts to enjoy that $450.00 computer.

**Howard, KK7KL**
**via e-mail**

*(Ed. I received another letter on this subject questioning my decision to print the letter from Mr. Lucas. The amateur requested his letter not be printed.*

*Mr. Lucas sent his letter as a "Letter to the Editor" and as such it is sent with the knowledge that it may be printed. My decision to print the letter was based on a principle we all enjoy, freedom of speech and freedom of the press. His views are his own, and by sending in the letter, he expressed a desire to share his views with the rest of us. Not one of us may agree with his views, but he does have the right to express his opinion. As to why I decided to print it — pick up a copy of your local newspaper and turn to the "Letters to the Editor" page. Does everyone sending in a letter agree with the Editor or the rest of the readers? Of course not. That's the purpose of pages like this — to get you to think about your own views on an issue, and to openly discuss the issue.*

*Did I do a disservice to Amateur Radio by printing the letter? No, I don't think so. There are people out there that share the views of Mr. Lucas, but not everyone sends their opinions in to be shared with a national audience. His letter just shows that it's not a perfect world, and some things in Amateur Radio are not perfect. But, by sharing ideas and opinions, we can take another stride towards improving the hobby.)*

## Los Alamos fire...

I would like to thank Bob Skaggs, KB5RX, for the super article on the Los Alamos 'controlled burn'. This article will be an effective tool during discussions with local emergency management officials that have come to depend on high tech communications gear and telephones/cell phones. Those of us who have lived through large scale disasters know first hand that communications infrastructure is extremely vunerable. I recommend sharing this current information with local EOC's and establishing durable relationships built on providing amateur radio assistance during periodic exercises. The real beneficiary of this relationship is the communities that we live in. As Bob pointed out, local authorities didn't accept their offers of assistance until they found themselves in a box. This is the same thing that happened in Charleston after Hurricane Hugo, and I have heard the same story echoed from other disaster areas. The worst time to meet the folks at the EOC and Red Cross shelters is when they don't have time to explain what their needs are. They just know they need 'comms' and need 'em quick. Again, please use this story to work with local authorities and Red Cross chapters to find out what their needs are ahead of time (unless you already have! Great job!) It is definitely worth the time. Lastly, I take my hat off to the Hams that served in Los Alamos, Bravo Zulu!

**Scott "Chip" Chippendale, WB3EFS**
**Oak Ridge, TN**

*(continued on page 64.)*


HAMWHIP™
H.F. MOBILE ANTENNAS

75 THRU 6 METERS
*600 WATTS NOMINAL
*APPROX. 8 FT. OVERALL
*3/8" x 24 MALE THREAD
*WHIP TELESCOPES INTO BASE SECTION FOR STORAGE

$22.99 EA.

ANTTRON ANTENNA COMPANY
P.O. BOX 2744
YOUNGSTOWN, OH. 44507
1-800-837-5516
E-MAIL ANTTRON@JUNO.COM
(CALL FOR NEAREST DEALER OR CATALOG)

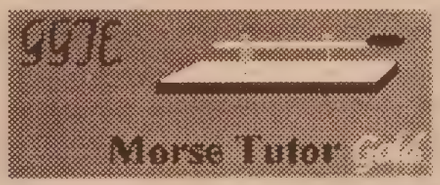


LEARN MORSE CODE

the fastest way possible as over 20,000 others have since 1987. Morse Tutor Gold is fun and it can use your Sound Blaster compatible sound card (not required).

FEATURES

* Structured lessons * Text import * Character, word, conversation drills * create character drills * Farnsworth and Standard modes * Exam drills includes all characters * Adjustable tone frequency, volume (with sound card), and code speed ( 0.1 to 100 WPM) * Keyboard entry *




For all DOS computers. At dealers, the ARRL, or send $29.95 + $4 S&H (CA residents add 7.75% tax) to: GGTE, P.O. Box 3405, Dept. MW, Newport Beach, CA 92659 (Specify 5¼ or 3½ inch disk)

Visit us at http://home.earthlink.net/~ggte/

G.G.T.E.

Sound Blaster, the Sound Blaster Logo and the Sound Blaster Compatibility Logo are trademarks of Creative Technology Ltd.



DC ACE ELECTRONICS, INC.

MAHA 204 AA SMART CHARGER-RAPID CHARGES AA OR AAA NICADS OR NIMH – $22.00
MAHA 777 UNIVERSAL CHARGER – $44.95
ADI AT600 IIP DUAL BAND HT – SALE $249.95
MOBILE WATT/SWR METERS – COVERS 140 TO 500 MHz 150 WATT SCALE – SALE $25.00 EA.

STANDARD/ADI
12V 600 MAH – $29
12V 1AH NIMH – $39

FOR ICOM-NIMH
BP-7 13.2V 1AH – $45
BP-8 8.4V 1.8AH – $45
BP-83 1.2AH 7.2V – $35
BP-84 1AH 7.2V – $29
BP-173 NIMH – $45

KENWOOD-NIMH
PB-34 1AH 9.6V – $39
PB-33 1.1AH – $35
PB-32 1AH – $29.95

YAESU-NIMH
FNB-27 12V 1AH – $45
FNB-41 1AH – $39.95
FNBV47 1.8AH – $49.95
FNB-38 650MAH – $39.95
VX1R NIMH – $25

INSERTS-ICOM
BP-7 600MAH – $25
BP-8 1400MAH – $25
BP-5 600MAH – $21
BP-3 270MAH – $14

INSERTS-YAESU
FNB-10 600MAH – $15
FNB-14 1AH – $24
FNB-17 600MAH – $17
FNB-4 600MAH – $25
FNB-2 600MAH – $22
FNB-2 NIMH 900MA – $29

INSERTS-TEMPO
S1-5 600MAH – $23

INSERTS-BEARCAT
100/200 600MAH – $15

INSERTS-KENWOOD
2400-W/CON – $24.95
25/2600 600MAH – $22
PB-6 600MAH – $15

NICADS-BUTTON TOPS
700MAH AA – $1
850 AA MAH – $1.25
1300MAH NIMH AA
BT (NEXCELL) – $2.50
TABBED NIMH AA
$2.50 EA
AAA 550 NIMH $2.50
D-4.4AH – $5.95
1200MAH SUB-C – $2.50
1500MAH SUB-C – $3.50
1800MAH SUB-C – $3.75

ANTENNAS-DUAL BAND
RD-9 SMA 6" DUCK – $19.95
RD-98 SMA 12" GAIN – $25
2M 5/8 BNC DUCK – $9.95
DUAL BAND 12" GAIN – $12.95
1/4 WAVE 2M MAG MOUNT
1/4 WAVE DUAL BAND MAG
$12.95 EA.
5 ELE 2M BEAM ANTENNA
MASPRO-6.8 DB GAIN – $49

DC ACE, INC.
P.O. BOX 364 • LINCOLNSHIRE, IL 60069
PH: (847) 821-8122 – VISA/MC
ADD $6 SHIP/HANDLING PER ORDER – FREE CATALOG!
WWW.DCACE.COM • E-MAIL: SALES@DCACE.COM

Mr. NiCd's BATTERIES AMERICA

SEPTEMBER 2000 SPECIALS

www.batteriesamerica.com

**New! The UDQ-9000 Charger!**
Charges / Conditions your NiCd or NiMH battery packs!
Adjustable sensor contacts!
Operates from wall outlet or Car cigarette lighter!
Smart quick charge with Automatic shut-off! $ 49.95

| | | | | |
|---|---|---|---|---|
| NEW for ICOM IC- T8A / T8A-HP / T81A: | | | | |
| BP-200 | 5w NiMH pk. | 9.6v | 700mAh | $49.95 |
| BC-601f | Rapid/Trickle Charger | | | $54.95 |
| NEW for KENWOOD TH-G71A / TH-D7A: | | | | |
| PB-39 | NiMH pk. | 9.6v | 1050mAh | $46.95 |
| NEW for ALINCO DJ-195 / 195HP: | | | | |
| EBP-48h | NiMH pk. | 9.6v | 1200mAh | $39.95 |
| For ALINCO DJ-G5TD,TH,TY / 190T,TD,TH / 191T,TD,TH: | | | | |
| EBP-34xh | NiMH pk. | 4.8v | 2400mAh | $39.95 |
| EBP-36 | 5w NiMH pk. | 9.6v | 650mAh | $36.95 |
| NEW for ADI HT-600 & REALISTIC HTX-204: | | | | |
| ADI-600x | 5w NiMH pk. | 12.0v | 1000mAh | $39.95 |
| For ICOM IC-Z1A / T22A / T42A / W31A / W32A / T7A: | | | | |
| BP-180xh | NiMH pk. | 7.2v | 1000mAh | $39.95 |
| BP-173 | 5w NiMH pk. | 9.6v | 700mAh | $49.95 |
| BC-601d | Rapid/Trickle Charger | | | $54.95 |
| For ICOM IC-W21A / 2GXAT / V21AT (Black or Gray) | | | | |
| BP-131xs | NiMH pk. | 7.2v | 1800mAh | $39.95 |
| BP-132s | 5w NiMH pk | 12.0v | 1600mAh | $49.95 |
| For ICOM IC-2SAT / W2A / 3SAT / 4SAT etc.: | | | | |
| BP-83xh | NiMH pk. | 7.2v | 1600mAh | $39.95 |
| BP-84x | NiMH pk. | 7.2v | 1800mAh | $43.95 |
| BC-79A | Rapid/Trickle Charger | | | $52.95 |
| For ICOM 02AT etc & Radio Shack HTX-202 / 404: | | | | |
| BP-8h | NiMH pk. | 8.4v | 1400mAh | $32.95 |
| BP-202h | pk (HTX-202) | 7.2v | 1400mAh | $29.95 |
| IC-8 | 8-Cell AA NiCd/Alkaline Case | | | $15.95 |
| BC-350 | Rapid Charger | | | $49.95 |
| For KENWOOD TH-79A / 42A / 22A etc.: | | | | |
| PB-33xh | NiMH pk. | 6.0v | 2000mAh | $39.95 |
| PB-34xh | 5w NiMH pk. | 9.6v | 1000mAh | $39.95 |
| For KENWOOD TH-78A / 48 / 28 / 27 etc: | | | | |
| PB-13x | (orig. size pk.NiMH) | 7.2v | 1200mAh | $34.95 |
| PB-13xh | NiMH pk. | 7.2v | 1600mAh | $39.95 |
| For KENWOOD TH-77, 75, 55, 46, 45, 26, 25 etc.: | | | | |
| PB-6x | (NiMH, w/ chg jack) | 7.2v | 1200mAh | $34.95 |
| NEW for KENWOOD TH-205 / 215 / 225 / 315 etc.: | | | | |
| PB-2h | NiMH pk. | 8.4v | 1200mAh | $39.95 |
| PB-12 | 5W NiMH pk. | 12.0v | 1000mAh | $49.95 |
| NEW for KENWOOD TH-2500 / 2600: EXCLUSIVE ! | | | | |
| PB-25s | NiMH pk. | 8.4v | 1200mAh | $39.95 |
| For YAESU FT-50R / 50RD / 40R / 10R etc.: | | | | |
| FNB-47xh | NiMH pk. | 7.2v | 1800mAh | $49.95 |
| FNB-41xh | NiMH pk. | 9.6v | 1000mAh | $45.95 |
| For YAESU FT-51R / 41R / 11R etc.: | | | | |
| FNB-33xh | NiMH pk. | 4.8v | 2000mAh | $39.95 |
| FNB-38 | 5W NiMH pk. | 9.6v | 700mAh | $39.95 |
| For YAESU FT-530 / 416 / 415 / 816 / 76 / 26 etc.: | | | | |
| FNB-25x | NiMH pk. | 7.2v | 1000mAh | $28.95 |
| FNB-26xs | NiMH pk. | 7.2v | 1800mAh | $36.95 |
| FNB-27x | NiMH pk | 12.0v | 1100mAh | $45.95 |
| For YAESU FT-411 / 470 / 73 / 33 / 23 etc.: | | | | |
| FNB-10 | NiCd pk. | 7.2v | 600mAh | $20.95 |
| FNB-11 | 5W NiCd pk. | 12.0v | 600mAh | $24.95 |
| FBA-10 | 6-Cell AA case | | | $14.95 |
| Packs for ALINCO DJ-580 / 580T / 582 / 180 / 280T etc.: | | | | |
| EBP-20nh | NiMH pk. | 7.2v | 1800mAh | $32.95 |
| EBP-22nh | 5W NiMH pk. | 12.0v | 1100mAh | $36.95 |
| EDH-11 | 6-Cell AA case | | | $14.95 |
| SANYO Nickel Metal Hydride AA Cells (Long Life): | | | | |
| HR-3u | Button top | 1.2v | 1600mAh | $ 3.50 |

*NEW- the IQ-9000 Charger & Conditioner for AA & AAA batteries!* $22.95
*(1) Desktop unit can charge or condition up to 4 NiMH or NiCd cells!*
*(2) Has selectable conditioning feature !*
*(3) Provides safe, quick charge for cells!*
*(4) Automatic shut-off at end of charge!*
*(5) UL-listed power supply included!*

Mail, E-mail, Phone, or Fax your order! We welcome MasterCard / VISA / DISCOVER /AMERICAN EXPRESS

Call, write, e-mail, or Fax us for our FREE CATALOG!

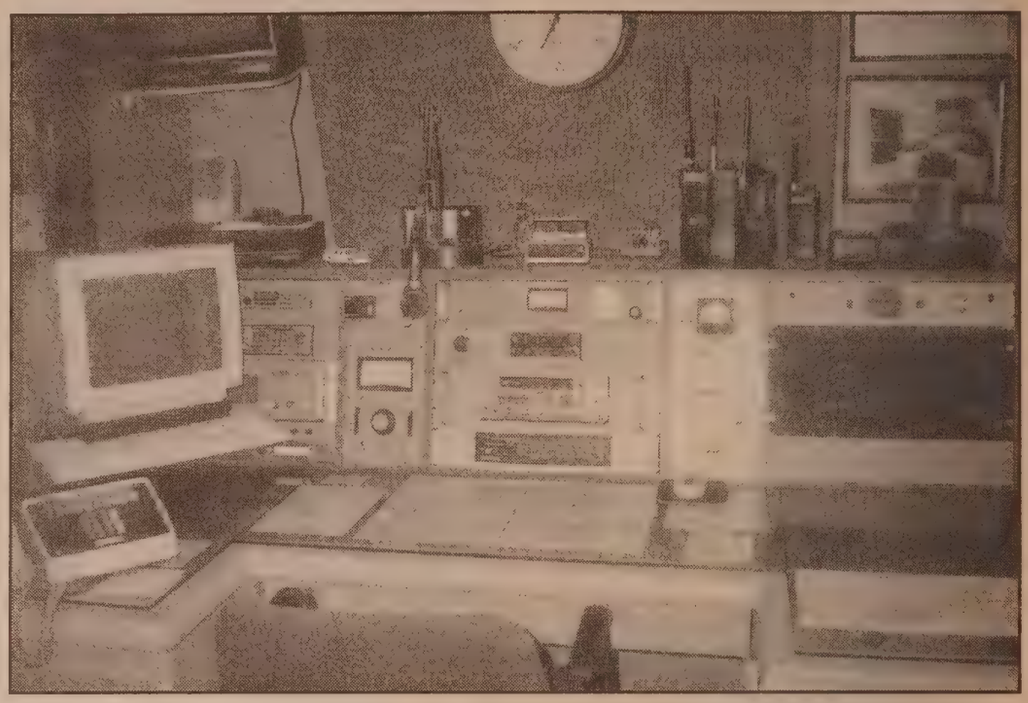
Mr. NiCd's *BATTERIES AMERICA*
2211-D Parview Rd., Middleton, WI 53562

*Order Toll Free: 800-308-4805*

Fax: 608-831-1082 E-mail: ehyost@midplains.net


# Station Appearance

*Send **Worldradio** a picture of your shack and the staff will choose a winner to receive a free one-year subscription to **Worldradio**! Stations will be judged by neatness (wires tucked away, etc.) and accessibility of equipment. Monetary value of equipment is not a consideration.*

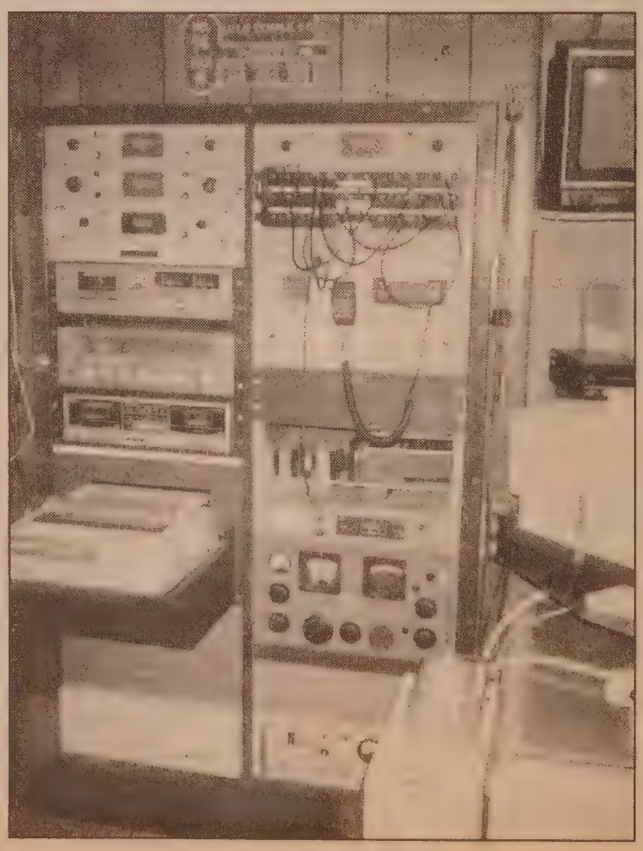


## Clinton Spencer, Jr., W3BBB

I constructed both the operating table and the console on it many years ago. The combination is against a false wall, placed 4-ft. from the outside wall of the building. A doorway gives access to the rear of the console for concealing the usual "rat's nest" of coax and interconnecting wires.

The relay racks built into the wall hold dedicated receivers for police, fire and aircraft as well as recording equipment and an RCA antenna patch panel.

With the exception of the Mosely CL-33 and an 80-40 doublet, most of my antennas are vertically polarized. I am pretty much VHF oriented.

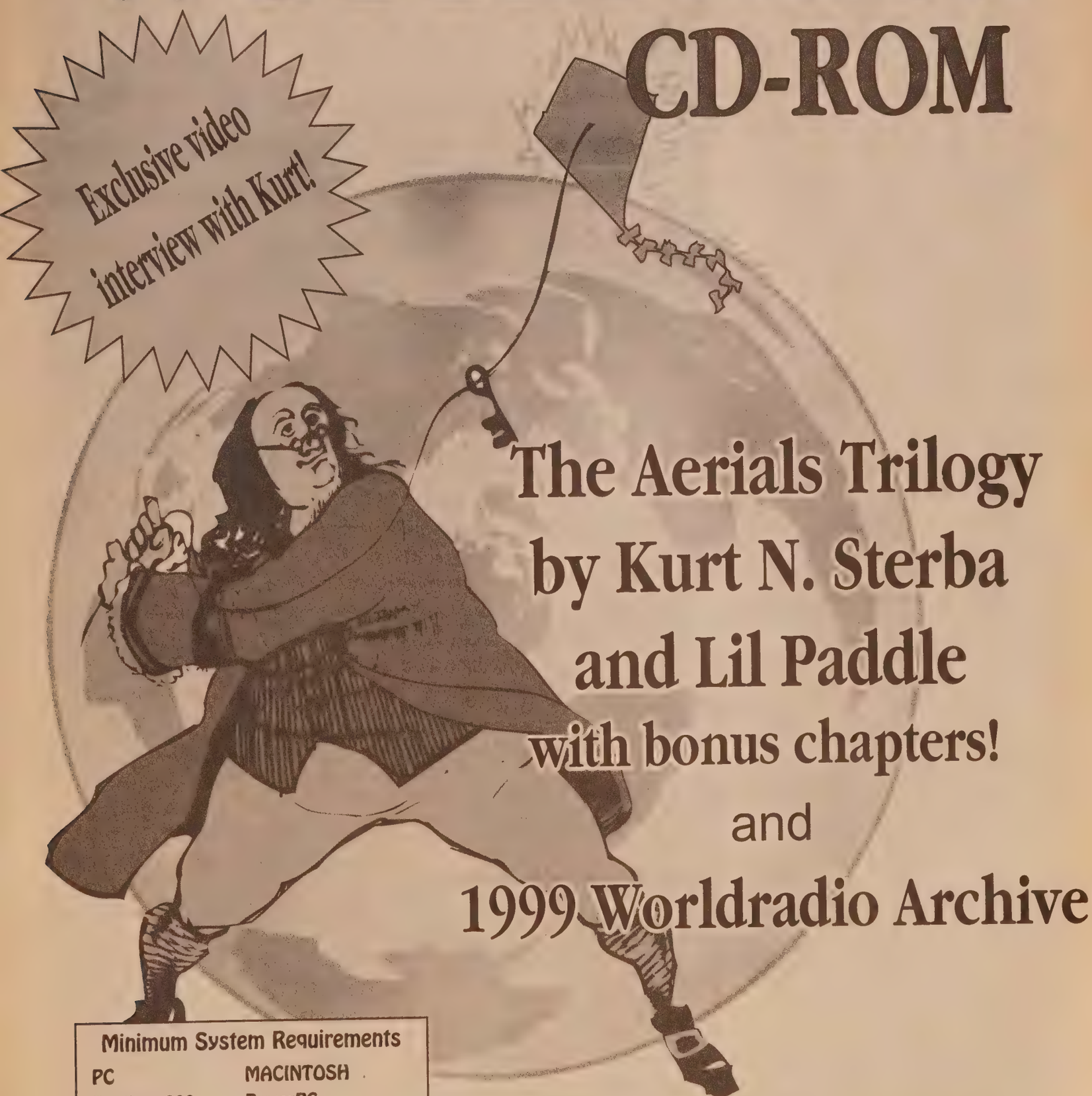


**This equipment rack is built into a false wall, which helps to keep the wire clutter hidden.**



To subscribe call: 1-877-472-8643

# Worldradio CD-ROM




## The Aerials Trilogy by Kurt N. Sterba and Lil Paddle

with bonus chapters!

and

## 1999 Worldradio Archive

**Minimum System Requirements**

| PC | MACINTOSH |
|---|---|
| Pentium 200 or compatible | PowerPC |
| Windows 95 | System 7 or greater |
| 32MB of RAM | 32MB of RAM |
| 8X CD-ROM drive | 8X CD-ROM drive |

The Worldradio CD-ROM is only $29.99 + $2 s/h (CA residents add $2.32)
To order call: 916/457-3655
or on the web at: http://www.wr6wr.com/products/software_cdrom.html

## W-100-N

Our latest qualifiers for *Worldradio's* Worked 100 Nations Award:

**567. Jon Haaven, ABØBF**
**568. Edward P. Madison, W2SN**
**569. Caroline Spears Swann, AC5UJ**
**570. Lou Geis, W5IBZ**

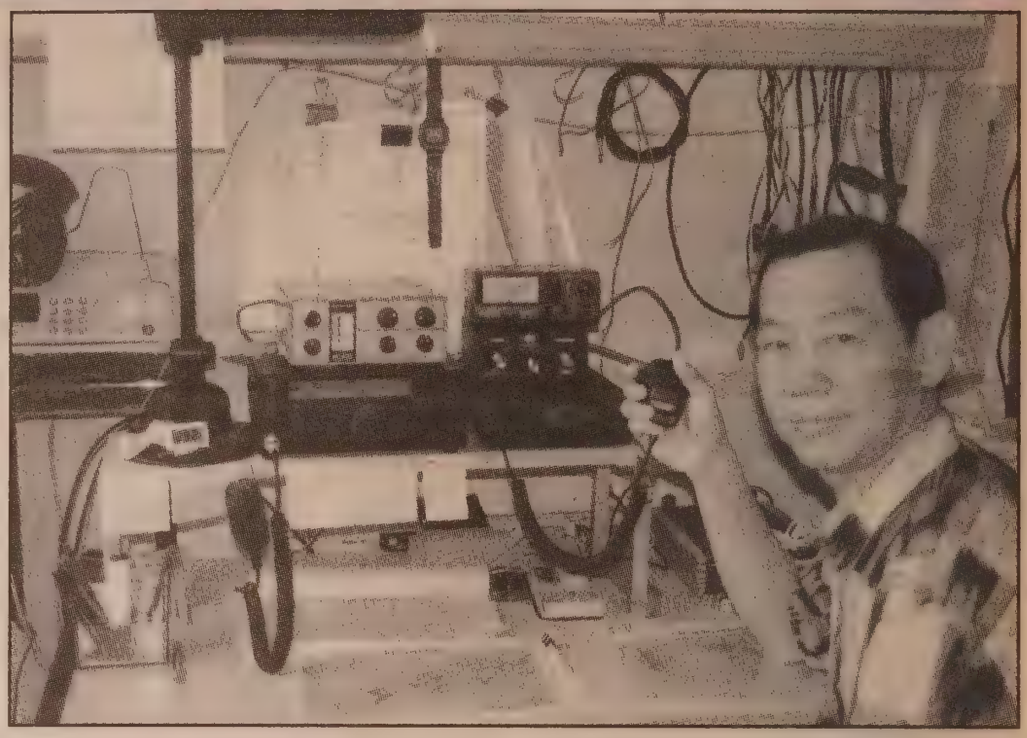
## CATZ

And, the following were successfully processed for our Contact All Time Zones Award:

**25. Richard C. Emmert, AA1KS**
**26. Kenneth E. Allinson, K6CIL**

## Singapore (9V)

Space in Singapore (AS-019) is a premium, such as the case of C.P. Leow, 9V1CP, who resides on the 8th floor of a 12-story apartment building. Leow says that generally DXers there have problems with antennas, many of them with a simple whip antenna stuck out the window. (Photo courtesy of 9V1CP).



**Singapore (9V): Space in Singapore (AS-019) is a premium, as in the case of C.P. Leow, 9V1CP, who resides on the 8th floor of a 12-story apartment building. Leow says that generally DXers there have problems with antennas, many have only a simple whip antenna stuck out the window. (Photo courtesy of 9V1CP).**

## Norfolk Island (VK9N)

*The Daily DX* reports that a multi-national team of YL operators from seven countries will be active as AX9YL from Norfolk Island (OC-005) 5-12 October. The team will be active on CW and SSB. The special callsign was obtained by the WIA Victoria so QSL will be via the VK3 bureau or direct to VK3DYL, Gwen Tilson, 3 Gould Ct., Mt Waverley, Victoria 3149, AUSTRALIA. Please provide return postage and an SAE.

## Bhutan (A5)

Now that Amateur Radio has opened up in Bhutan, A52NL was heard in late June. Sam Kamibeppu, JA6NL, was operating from Paro, near the airport.

## East Timor (4W)

According to the Ohio/Penn *DX Bulletin*, Antonio Pereira, 4W6GH, is the most active station from East Timor (OC-148). He prefers SSB and RTTY on 5, 17 and 20M between 1300-1630 UTC. His home call is CT1EGH.

*The Daily DX* reports that Antonio had expected to operate from Atauro Island (OC-NEW), East Timor, pending UN approval. If you worked 4WØAI 7-10 July, that was Antonio.

Look for Dennis Motschenbacher, K7BV; Made Gede, YB9BV; and Dick Wolf, N6FF, for some serious low-band activity in early October. They should be available for a little over one week. QSL requests go via Steve Wheatley, KU9C.

Thor Stefansson, 4W6MM, has been busy responding to QSL requests for the thousands of contacts he has made. He mails his cards locally from Dili and it has been suggested that you save the envelope as it could become a collector's item. Refer to Thor's website at http://www.dailydx.com/4w6mm.html.

## Nauru Island (C2)

Look for Jack Haden, VK2GJH, in December for a 14-day affair signing with C21JH from Nauru Island (OC-031). Jack is looking for financial support from the VHF DX community for this 50 MHz operation. He hopes to be on air by 20 December and a second operator may be included so that 6 Meters is monitored 24 hours per day.

## Kingman Reef (KH5K)

The Kingman/Palmyra DX Group will include a multi-national group of DXers for the upcoming DXpedition to Kingman Reef (OC-096) in October. The group includes: Bob Allphin, K4UEE; Harry Booklan, RA3AUU; Chuck Brady, N4BQW; Kimo Chun, KH7U; Pat Guerin, NH6UY; Tom Harrell, N4XP; Al Hernandez, K3VN; Dave Johnson, WB4JTT; Jari Jussila, OH2BU; Franz Langner, DJ9ZB; Garry Shapiro, NI6T; Ned Stearns, AA7A; and Vrata Vaverka, OK1KT. Pilot stations will be Klaus Wagner, DL1XX, as European pilot, and Don Greenbaum, N1DG, as Webmaster.

There are plans for at least four stations and coverage from 160-6 Meters.


**MULTI-BAND SLOPERS**

1/2-SLOPERS ARE AN EXCELLENT WAY OF OBTAINING 160-80-40M DX IN A VERY SMALL SPACE. OUR SLOPERS CAN BE TOWER FED (OR GROUND FED IF YOU DON'T HAVE A TOWER). TOWER FEED REQUIRES A TOWER WITH AT LEAST A MEDIUM-SIZE TRI-BAND BEAM ON TOP. GROUND FEED REQUIRES AT LEAST A COUPLE OF RADIALS. ANTENNAS ARE COMPACT, AUTO-BANDSWITCHED, LOW PROFILE, FULLY ASSEMBLED AIMED AT YOUR SPECIFIED CENTER FREQS., FIELD ADJUSTABLE.

| | | | |
|---|---|---|---|
| MS-684 | 160-80-40M 1/2-SLOPER | 60' LONG | $80.00 |
| MS-068 | 160-80M 1/2-SLOPER | 85' LONG | $70.00 |
| MS-084 | 80-40M 1/2 SLOPER | 41' LONG | $65.00 |
| SS-006 | 160M SINGLE-BAND 1/2 SLOPER | 60 OR 65' LONG | $70.00 |
| MBC-069-40 | 160-80-40M BROAD BANDER | 105' LONG | $90.00 |
| MS-064-832 | 160-80-40-30-15-12M DOUBLE SLOPER | 60' LONG | $90.00 |

Send 2-stamp SASE for details of these and other antennas. (S&H = $7 PER ANT.)

W9INN ANTENNAS (847) 394-3414
BOX 393, MT. PROSPECT, IL 60056



**Log-EQF**

THE *EASY TO USE* LOGGING SOFTWARE.

**LOG-EQF VERSION 9**

- Complete station control for rig, TNC, antenna switch, and rotator.
- CW keyboard and memory keyer.
- Works with major callsign database CD's and the GOLIST QSL Manager Program (GOLIST starter database included).
- Award tracking, QSL and address labels, DX cluster spotting, beam headings, and more.
- **Log-EQF Version 9** runs on 80286 PC or better, in DOS, Windows, or OS/2.
- Price $49.95 (add $3 shipping outside North America). VISA and MasterCard accepted.

*EQF Software*
Tom Dandrea, N3EQF • 547 Sautter Drive • Crescent, PA 15046
Phone/FAX: 1-724-457-2584 e-mail: n3eqf@usaor.net
web site: http://www.itis.net/eqf




To subscribe call: 1-877-472-8643

Details will be provided as October approaches.

Transportation costs to this remote location will be considerable, and contributions of any size to defray the costs of this DXpedition will be greatly appreciated. Please send yours to: Tom Harrell, N4XP, 2011 New High Schoals Rd., Watkinsville, GA 30677.

The group will continue to man Palmyra Atoll (OC-085) over the summer. Efforts have focussed upon assisting The Nature Conservancy's purchase of the atoll, which has limited Amateur Radio operations. However, it is anticipated that operating opportunities will increase in the near future. All QSL requests should be sent via K4TSJ.

## Christmas Island (VK9X)

Two young German Amateur Radio operators will be operating from Christmas Island (OC-002) 13-25 August. *The Daily DX* says two nineteen-year old DXers, Stefan Giehle, DH1SGS, and Toby Wellnitz, DH1TW, will have two transceivers, a 400W amplifier, an HF9V vertical and a Force 12 C3 beam. Stefan will operate SSB while Toby will handle the CW pileups. Look for these young DXers signing with VK9XY. Stefan will handle QSL requests either direct or via the DARC QSL bureau. See their website at http:// www.qsl.net/ vk9xy.

## Sudan (ST)

Jeff Hambleton, 5B4YY, has been operating from Khartoum, Sudan, signing with STØP through August. This is not Southern Sudan, the last entity to enter the Deleted DXCC Countries List under the new rules.

Jeff told *The Daily DX* he was the first licensed Amateur Radio operator from Sudan, which caused a stir of questions about Dr. Sid, and went on to say, "ST2SA has been operating for 20 to 30 years from Khartoum. He is very well known and respected here and is accepted by the authorities. However, during the last year in trying to get a license, I was told that no amateur licenses had ever been issued in Sudan before and the decision to issue one had to go to the government committee level."

He went on to say, "A few months ago, I was asked to give a small introduction on Amateur Radio at the ministry of roads and telecommunication. The frequency plan manager also recently visited Istanbul (ITU conf) and while there, he spoke to the representative for Amateur Radio. Basically, the problem has been an ignorance about Amateur Radio. When I received my license, out of respect for Dr. Sid, I was asked to put number 2 so I wrote 002."

Jeff admitted to *The Daily DX* that he probably should have said that he was the first to be licensed by the present authorities in Khartoum.

QSL requests should go to Jeff Hambleton, 1 Psaron, Chloraka 8220, Paphos, CYPRUS. Bureau cards are O.K.

## Cocos (Keeling) Island (VK9C)

Don Graham, VK6HK, announced that he and Wal Howse, VK6KZ, will be heading to Cocos (Keeling) Island (OC-003) this fall. The period of operation will be 21 Oct. - 4 Nov. signing with VK9CK and VK9CZ, respectively.

The main object will be concentration on 6M. If conditions are not up to par they will explore the HF bands.

## Chagos Islands (VQ9)

According to the *Ohio/Penn DX Bulletin*, Dale Strieter, W4QM, has returned to Diego Garcia and is signing with VQ9QM. Dale operates mainly on CW and should be there for about four or five months.

## IOTA

Roger Balister, G3KMA, the RSGB manager for the IOTA program, reports that the following operations have provided acceptable validation material:

| | | |
|---|---|---|
| AF-027 FH/TU5AX | Mayotte Island | March-July 2000 |
| AF-073 3V8BT | Kerkenah Islands | March 2000 |
| AF-084 9G5MD | Abokwa Island | April 2000 |
| AS-132 XV5JY | Cat Ba Island | May 2000 |
| AS-132 XV5TK | Cat Ba Island | May 2000 |
| AS-132 XV5VE | Cat Ba Island | May 2000 |
| NA-187 N6JV/P | White Rock | April 2000 |
| OC-058 FK8KAB/P | D'Entrecasteaux Reefs | April 2000 |
| OC-069 P29VMS | Lihir Islands | March 2000 |
| OC-076 YC8XNE | Sulabesi Island | resident |
| OC-076 YC8XWJ | Sulabesi Island | resident |
| OC-093 DU2/DL2GAC | Batan Islands | April 2000 |
| OC-120 DU1/DL2GAC | Cuyo Islands | April 2000 |
| OC-158 H44MS | Florida Islands | February 2000 |
| OC-176 FK8HA/P | Chesterfield Islands | April 2000 |
| OC-176 FK8VHY/P | Chesterfield Islands | April 2000 |
| OC-231 P29VMS | Green Islands | March 2000 |
| SA-021 AY5E/D | Trinidad Island | February 2000 |
| SA-021 L44D/D | Trinidad Island | February 2000 |
| SA-021 LOØD/D | Trinidad Island | February 2000 |
| SA-021 LU7DR/D | Trinidad Island | February 2000 |
| SA-021 LU7DSY/D | Trinidad Island | February 2000 |
| SA-021 LU7VCH/D | Trinidad Island | February 2000 |
| SA-021 LU8DWR/D | Trinidad Island | February 2000 |
| SA-021 LU8EEM/D | Trinidad Island | February 2000 |
| SA-021 LU8VCC/D | Trinidad Island | February 2000 |

There are a few other operations that the IOTA committee is awaiting validation material, particularly that of NA-064 by AL7RB/P last September from Attu Island in the Near Islands. Do not submit for IOTA credit until validation material has been approved.

*The Daily DX* notes that Alexander, UAØQBA, is operating from the Island of Kotelny (AS-028) using CW, SSB, RTTY, PSK-31 and SSTV. He expects

KENWOOD YAESU

MFJ
CUSHCRAFT
LARSEN
MAHA
MIRAGE
KANTRONICS

ICOM

IAC
DIAMOND
BENCHER
ASTRON
LAKEVIEW
BUTTERNUT

QUOTES & ORDERS
800-891-9199

TECHNICAL & INFO
717-336-6060

VISIT OUR WEB AT: http://www.denverradio.com

DENVER AMATEUR RADIO SUPPLY

*LOCATED 2 MILES SOUTH OF PA TURNPIKE EXIT 21 @ ROUTE 272 & WABASH CENTER*

1233 N. READING RD, STEVENS, PA 17578. (Lancaster County).
MON, TUE, FRI 9AM-6PM; WED, THUR 9AM-8PM; SAT 9AM-3PM.

to remain on the island until summer, 2001.

Here are a few IOTA operations for later this year: VI2BI from Broughton Island (OC-212) by a large group of Australian DXers 6-15 Oct.; XE3/F6BUM from Mujeres Island (NA-045) 30 Aug.-8 Sept.; TS7N from Kerkennah Island (AF-073) 15-30 Nov.; KL7USI from Unalaska Island (NA-059) 24-25 Nov.; and KI6T/P from Santa Catalina Island (NA-066) 3-5 Oct.. Also a new one from Browse Island by three Australians 1-5 Sept.

There was much IOTA activity in June, particularly from Europe due to those working at the IOTA 2000 Millenium Award where contacts were worth three points, and new island groups per the new IOTA Directory (see below). For award purposes these new IOTA numbers may not apply, such as EU-170 which counts the same as EU-136. Conversion sheets of your existing records should now be ready. Certain islands you may have worked previously could possibly apply for conversion to the new number.

Anyway, here is a selection of the activity, including some of the new numbers. There was far more activity than what I have shown. To be reasonable I have listed a portion of what was on.

| | | |
|---|---|---|
| AF-054 5H3/PA3GIO | Mafia Island | 18-24 Jun |
| AF-063 5H1/PA3GIO | Pemba Island | 26-30 Jun |
| AN-006 EM1KY | Galindez Island | 12-27 Jun |
| AS-005 RZ9DX/0 | Dickson Island | 06-28 Jun |
| AS-008 7K3EOP | Miyake Island | 14-20 Jun |
| AS-015 9M2TO | Penang Island | 09-16 Jun |
| AS-023 JE6EMW | Amani Archipelago | 28 Jun |
| AS-023 JA7YCE/6 | Amami Oshima | 14-22 Jun |
| AS-023 JP6JKK | Amami Island | 17-18 Jun |
| AS-024 JS6LIH | Yaeyama Islands | 04 Jun |
| AS-026 HL4HLD | Cheju Island | 04 Jun |
| AS-032 JA6CTW | Yaku Island | 13-29 Jun |
| AS-043 JI3DST/1 | Hacijo Island | 17-19 Jun |
| AS-043 JI2KLU/1 | Nampo Archipelago | 05 Jun |
| AS-045 HL5FUA | Ullang Island | 11-25 Jun |
| AS-053 HS0/IK4MRH | Phuket Island | 16-27 Jun |
| AS-056 JA6GXK | Danjo Archipelago | 02-30 Jun |
| AS-074 9M2/GM4YXI | Pulau Ketam | 17-18 Jun |
| AS-080 HL0ZX/3 | Anmyun Island | 26-29 Jun |
| AS-099 TA0/IZ7ATN | Bozcaada Island | 19-21 Jun |
| AS-103 BV9AAC | Penghu Island | 07-11 Jun |
| AS-136 BD4ED | Chong Ming Island | 12 Jun |
| AS-147 JJ8XNA | Okushiri Island | 26-30 Jun |
| OC-022 YC9BU | Bali Island | 17-29 Jun |
| OC-033 FK8HZ | Lifou Island | 08-26 Jun |
| OC-046 FOØCLA | Tahiti Island | 04-16 Jun |
| OC-046 FOØDER | Tahiti Island | 14 Jun |
| OC-067 FO5NL | Raiatea Island | 14-17 Jun |
| OC-067 FOØAKI | Bora Bora Island | 23-25 Jun |
| OC-067 FO5QS | Huahine Island | 06-23 Jun |
| OC-075 YC5YAS | Batam Island | 14-18 Jun |
| OC-075 YC5PQM | Batam Island | 08 Jun |
| OC-075 YC5TML | Batam Island | 04-18 Jun |
| OC-075 YC5YCT | Batam Island | 08-29 Jun |
| OC-119 DU8ARK | Jolo Island | 09 Jun |
| OC-129 DU7MHA | Cebu Island | 11 Jun |
| OC-130 DU8DJ | Mindanao Island | 18-30 Jun |
| OC-137 VK4LV | Bribie Island | 10 Jun |
| OC-137 VK4CY | Lamb Island | 05-27 Jun |
| OC-141 VK8KTC | Groote Eylandt | 18 Jun |
| OC-148 YC9MKF | Timor Island | 17-30 Jun |
| OC-149 H44NC | New Georgia Is | 24 Jun |
| OC-169 A35RK | Lifuka Island | 05-21 Jun |
| OC-184 V85QQ | Pulau Muara Besar | 10 Jun |
| SA-008 LU8XP | Terra del Fuego | 05-24 Jun |
| SA-020 FY/F5KEE | Salut Island | 01-03 Jun |
| SA-072 PT7AA/PR8 | Canarias Island | 23-24 Jun |
| SA-072 PT7BZ/PR8 | Canarias Island | 22-24 Jun |

Roger Balister, G3KMA, says a station signing RI1P at various times during the month of June and claiming to be on EU-102 was unlicensed. The Russian licensing authority states that it has not issued that call for use this year. Looks like Slim has discovered IOTA!

Roger also said the station signing N5VT in May claiming to be on the Chandeleur Islands (NA-089) was not on an IOTA-qualifying island.

## 2000 IOTA Directory

Mike Crownover, AD5A, reports the new IOTA directories are available with the following announcement:

The Island Radio Expedition Foundation, Inc. www.sat.net/~iref, will be the distributor for the directories in North America. The price will be $16.00 plus $3.00 postage. All profits from the sale of these directories by IREF will go toward the funding of expeditions to new or rare IOTA-qualifying islands.

To reserve your copy, send $19.00 to: IREF, Inc., 118 Oak Ridge Dr., New Braunfels, TX 78132.

The Island Radio Expedition Foundation is a 501(c)(3) non-profit organization created to provide financial and other support to DX-peditions to new or rare IOTA qualifying islands.

There are significant changes which include 58 new IOTA island groups. And, there are some deleted island groups, too. If you are in the IOTA program it will be worth your while to obtain a copy.

IT'S HERE!!!

PROLOG2K

For Windows 95/98/2000

You've been waiting, and now, here it is! ProLog2K for Windows with: 36 Logbooks, tracking for all major awards, Rig Control, DX Packet Cluster, support for all CDROM databases, our exclusive 71,000 QSL Route Database and much more! Visit our website and see it for yourself. ProLog2K: $49.95. With QSL Route Database: $64.00. DOS ProLog upgrade to ProLog2K for Windows: $25.00. DX add $6.00. VISA, MC, AMEX and Discover accepted.

DATAMATRIX
5560 Jackson Loop NE Rio Rancho, NM 87124
Info: (505)-892-5669 Orders Only: 1-(800)-373-6564
Email: prolog@ri66.com
Web: http://www.qth.com/prolog

## Lone Star DX Association

Bill Priakos, W5SJ, Chief Director of the Lone Star DX Association (LSDXA), says they have plans for a great year for all DXers, old and new! Quarterly meetings will be held. The tentative schedule is 19 Aug., 18 Nov., 2000, 10 Feb. & 12 May 2001. Locations will vary in the Dallas-Ft. Worth area and will be posted on the new LSDXA reflector. Additional meetings will be posted as well when a DXer of note is passing through the area. The LSDXA will sponsor a speaker at the DX Bash on 7 October on Lake Buchanan near Austin, TX.

The primary purpose is to provide monetary support for major DXpeditions, but in order to grow and build funds, they must have the support of both old and new members. Recognizing that a peak in sunspots also piques the interest of DXers everywhere, they will recruit new members by contacting all DXers in the North Texas area who have obtained DXCC.

They have a very ambitious plan for the Spring of 2001. Working with the Texas DX Society, Central Texas DX and Contest Club and other area DX clubs, LSDXA proposes to jointly host a three-day DXPO in North Texas. DXers from around the world will be invited. A meaningful, informative symposium on DX featuring the most interesting DXpeditions, propagation experts, antennae programs, the future of DX, etc. would be presented. Planning is now under way for this project which could be very exciting for all in the North Texas area. They welcome your suggestions!

## New 15M DXCC Award

Bill Moore, NC1L, of the DXCC Desk, announces the addition of a 15M single band DXCC award. Beginning 1 June 2000, DXCC printouts have been set to reflect credits on 15 Meters. 15-meter DXCC certificates will be dated but not numbered. Deleted entities do not count toward this award. Those who have an active 5 Band DXCC which was processed prior to DXCC computerization and do not have 100 entities in the computer (on 15 Meters) will be allowed to submit enough credits on that band to bring the computerized record to the first 100 needed for this award with no per QSO fee. Simply include postage and the award fee. The award fee is $10. Please note your 5 Band DXCC award number and original



To subscribe call: 1-877-472-8643

# DX Prediction — September 2000

Maximum usable frequency from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 1934, Middleburg, VA 20118). The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa—Kenya/Nairobi, Asia—Japan/Tokyo, Oceania—Australia/Melbourne, Europe—Germany/Frankfurt, and South America—Brazil/Rio de Janeiro. Smoothed sunspot number = 135. Chance of contact as determined by path loss is indicated as bold *MUF for good, plain MUF for fair, and in *(parentheses)* for poor. UTC in hours.

CENTRAL U.S.A.

| UTC | AFRI | ASIA | OCEA | EURO | SO AM |
|---|---|---|---|---|---|
| 8 | *(15)* | 13 | **25 | 12 | **20 |
| 10 | *(21)* | **12 | **22 | 19 | **19 |
| 12 | 30 | **16 | **19 | **26 | **30 |
| 14 | **34 | 14 | 24 | **28 | **38 |
| 16 | **36 | *(13)* | 21 | **27 | **42 |
| 18 | **36 | *(12)* | *(18)* | **25 | **43 |
| 20 | **33 | 23 | 33 | **22 | **43 |
| 22 | **28 | **27 | **40 | 15 | **45 |
| 24 | **24 | 26 | **44 | **13 | **37 |
| 2 | **21 | 21 | **40 | **12 | **31 |
| 4 | **19 | 16 | **36 | **12 | **26 |
| 6 | 17 | 14 | **30 | **13 | **23 |

WEST COAST

| UTC | AFRI | ASIA | OCEA | EURO | SO AM |
|---|---|---|---|---|---|
| 10 | *(15)* | **14 | **26 | *(12)* | **22 |
| 12 | *23* | **13 | **23 | 20 | 19 |
| 14 | 31 | **17 | **19 | 26 | **31 |
| 16 | 34 | **16 | 22 | 26 | **39 |
| 18 | **35 | *20* | *(18)* | 24 | **43 |
| 20 | **34 | **30 | 32 | 19 | **44 |
| 22 | **28 | **30 | **40 | *14* | **43 |
| 24 | 24 | **29 | **44 | *(13)* | **41 |
| 2 | **21 | **27 | **45 | **12 | **34 |
| 4 | **19 | **22 | **41 | **16 | **28 |
| 6 | *17* | **18 | **37 | 14 | **24 |
| 8 | *(16)* | **16 | **30 | 13 | **21 |

EAST COAST

| UTC | AFRI | ASIA | OCEA | EURO | SO AM |
|---|---|---|---|---|---|
| 7 | **20 | 13 | **25 | **12 | **21 |
| 9 | 23 | **12 | **22 | 19 | **19 |
| 11 | **37 | **16 | **19 | **26 | **30 |
| 13 | **42 | 15 | 25 | **28 | **36 |
| 15 | **43 | *(13)* | 22 | **28 | **40 |
| 17 | **41 | *(12)* | 20 | **27 | **42 |
| 19 | **37 | 19 | 27 | **24 | **43 |
| 21 | **30 | 26 | 38 | 16 | **43 |
| 23 | **26 | 26 | **43 | **14 | **41 |
| 1 | **23 | 21 | 39 | **13 | **33 |
| 3 | **19 | 15 | **35 | **12 | **28 |
| 5 | **23 | 14 | 29 | **13 | **24 |

issue date on the application form in the block specified.

If you do not know what credits you have on 15M, you should contact DXCC for an updated report, prior to submitting further credits. This will help both you and DXCC in that it will avoid duplicates and additional costs, since QSL costs over the limits noted in DXCC Rule #15 are $0.15 per QSO. If you have web access and can handle ADOBE (.pdf) files, contact DXCC at dxcc@arrl.org for a copy of your record. If you do not have web access, please send a note to DXCC along with $1.50 for postage or an SASE with $1.50 in postage. If you have not submitted since the latter portion of 1991, your records are not in the computer, and an SASE with valid postage is required for a hard copy.

Please contact DXCC for any comments and/or questions relating to these new awards at dxcc@arrl.org

## DXCC Yearbook

The 1999 DXCC Yearbook was sent to all active DXCC members in June. Bernie McClenny, W3UR, comments of the top ten most wanted DXCC entities, based on DXCC submittals:

North Korea (P5) — North Korea is on the top of every DX Most Wanted List and could be on the air sometime this year, especially now that North and South Korea are talking to each other. Will Martti Laine, OH2BH, go back? Or perhaps the South Koreans (HL) or Chinese Amateur Radio operators could open the door a little wider.

Scarborough Reef (BS7H) — Scarborough Reef may be difficult but not impossible. Perhaps the Chinese and the Philippinos could do a joint venture to help avoid a conflict like the last DXpedition.

Pratas Island (BV9P) — Pratas Island was just activated last fall and should drop from the top 10. QSL cards for the recent BQ9P operation should start going out very soon.

Bhutan (A)5 — Bhutan is sure to fall from the top 50 as the recent A52A and A52JS operations made over 100,000 QSOs between the two of them. Future operations for this Himalayan country are in the works.

Andaman & Nicobar Islands (VU4) — Andaman & Nicobar Islands have regular airline flights but getting a license is a nightmare. Indians are working on getting through these endless obstacles.

Yemen (7O) — Yemen remains a tough nut to crack as the past two operations and others have found. It may take some neighborly influence from one of the other Arabian countries to open

From MILLIWATTS to KILOWATTS℠

Eimac
Svetlana
Taylor Tubes™

TRANSMITTING & AUDIO TUBES
*Immediate Shipment from Stock*

| | | | |
|---|---|---|---|
| 3CX400A7 | 3CX10000H3 | 4CX3000A | 6146B |
| 3CX400U7 | 3CX10000A7 | 4CX3500A | 6146W |
| 3CX800A7 | 3CX15000A3 | 4CX5000A | 6JB6A |
| 3CX1200A7 | 3CX15000A7 | 4CX7500A | 8560AS |
| 3CX1500A7 | 3CX20000A7 | 4CX10000A | 3-500Z |
| 3CX2500A3 | 4CX250B & R | 4CX10000D | 3-500ZG |
| 3CX2500F3 | 4CX350A & C | 4CX15000A | 3-1000Z |
| 3CX2500H3 | 4CX400A | 4CX20000A7 | 4-125A |
| 3CX3000A7 | 4CX800A | 5CX1500A & B | 4-250A |
| 3CX3000F7 | 4CX1000A | 572B | 4-400C |
| 3CX6000A7 | 4CX1500A & B | 811A | 4-1000A |
| 3CX10000A3 | 4CX1600B | 833A & C | 4PR1000A |

- Motorola RF Transistors
- Toshiba RF Transistors
- Door Knob Capacitors
- Semco Metal Clad Micas
- Vacuum Relays
- Japanese Transistors
- RF Power Modules
- Broadband Ferrite Xmfrs
- Power Tube Sockets
- Bird Meters & Elements

RF POWER TRANSISTORS & MODULES

MITSUBISHI ELECTRIC
TOSHIBA
MOTOROLA

Complete inventory for servicing Amateur, Marine, and Commercial Communications Equipment.

Se Habla Español • We Export

*Visit our Web Site for latest Catalog pricing and Specials:*
**rfparts.com**

1966 30 1996 Year Anniversary

ORDERS ONLY
1-800-RF-PARTS • 1-800-737-2787
ORDER LINE • TECH HELP • DELIVERY INFO.
760-744-0700
FAX 760-744-1943 TOLL-FREE FAX 888-744-1943
E-MAIL: rfp@rfparts.com
435 S. Pacific St. • San Marcos, CA 92069

RF PARTS™ COMPANY

this door.

Eritrea (E3) — Eritrea is once again in a war with neighboring Ethiopia. QSL cards for the past operations in 1998 will more than likely be submitted this year and take this one out of the top 10.

Bouvet Island (3Y) — Bouvet Island has not been on the air since 1997 and that was only 200 QSOs. Prior to that it was 1990 when 3Y5X was active. This will take a large budget and getting through the environmental issues.

Tromelin Island (FR/T) — Tromelin Island usually has at least one operation each year as Henri, FR5ZQ, or Jacques, FR5ZU, do maintenance work on the island's weather station. A major operation has been scheduled by French operators for Aug. 2000.

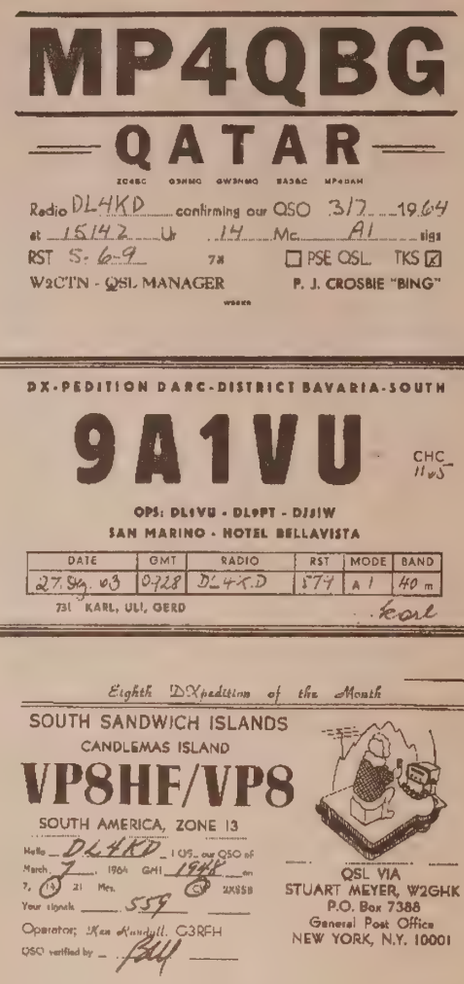
Lakshadweep Islands (VU7) — Lakshadweep Islands (Laccadive Islands) were last activated in 1992 and 1993. At least one group is currently working on this one and is aiming to hit the air in the next year.

Bernie also notes on some of the relatively easy European countries in this list, the reason for this is that cards from these countries are not being submitted for DXCC credit. Thanks, Bernie, for your input.

## Dave Heil Comes Home

Bernie McClenney, W3UR, in his electronic *The Daily DX*, says veteran DXer Dave Heil, K8MN, is back after many years on the other side of the pileup. This included many calls such as 5H3US, A22MN, OHØ/K8MN, 9L1US, and J52US. Hats off to Dave for the many new ones he handed out over the many years in some not so nice places in Africa! Bernie is right about that as Dave has helped many a deserving DXer and has been active in the major DX contests.

In his *Ohio/Penn DX Bulletin*, Tedd Mirgliotta, KB8NW, adds that over a decade and a half, Dave collected over 230,000 contacts. Dave and his Finnish born wife, Leila, will settle down at their West Virginia home.




Ken Scheper, WA8JOC, is his QSL manager and has all his past logs if you are interested in having confirmation from one or more of Dave's operations.

## Antique QSL Department

This month's selection of Antique QSL cards were provided by Bob Ekleberry, W4CKD, of Greenville, Ohio. Bob was signing with DL4KD in Germany at the time. They date back to the 1960s, which to many of us are not necessarily antique. But, for our younger readers they very well could be.

At that time Bahrain, Oman and Qatar were still using the MP4 prefix as we can see with the MP4QBG card, operated by P.J. Crosbie. W2CTN was indicated as the QSL manager, a popular manager of that time.

The second card is that of 9A1VU, a DARC DXpedition to San Marino. This prefix was once assigned to that little nation which now uses T7. To the left is the indication "CHC 1165" which was the Certificate Hunters Club, once managed by the late Clif Evans, K6BX.

The third card, VP8HF/VP8, is one of many DXpeditions sponsored by Stuart Meyer, W2GHK, who was Hammarlund Radio. Yes, the old Hammarlund Super-Pros, real good receivers. Stu used to provide QSL cards for many of these DXpeditions, which also included those to counties for the county hunters. These were the days before the hunters hunted and didn't sit on 14.336 MHz waiting for the mobiles to come to them.

## QSL Information

For those of you who have worked Alan Cheshire, VKØMM, on Macquarie Island (AN-005) he does not have a QSL manager. Alan says he'll begin processing QSL requests in January 2001 and a QSL route will be announced at the end of this year. Do not send cards to the licensed address. So, until further advised, please retain your QSL cards for VKØMM.

Thanks go to the following contributors for this month's column: 9V1CP, G3KMA, G3SWH, VK4FW, VK6HK, VKØMM, W4CKD, N4XP, AD5A, NI6T, RSGB, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), DXCC Desk (NC1L), WebCluster (OH2AQ), *425 DX News* (I1JQJ), *The OPDX Bulletin* (KB8NW), *DX-News* (NJDXA), *The Low Band Monitor* (KØCS), *The Daily DX* (W3UR), and QRZ DX (N4AA).

Those of you involved in the IOTA millenium program should have picked up a lot of points in June due to those 3-pointers from Europe. Unfortunately, for us on the West Coast, the magnetic storms raised havoc with us and our chances were greatly reduced. Oh well! It's only a hobby!

— *John F.W. Minke III, N6JM can be reached at: P.O. Box 310, Carmichael, CA 95609-0310 or via e-mail: n6jm@pacbell.net.*

The 59(9) DXReport
Your Weekly Source for Worldwide DX and Contest News
Weekly DX and Contest bulletin
Available in Paper or E-Mail (PDF)
*Free* Sample Issue
P.O. Box 73, Spring Brook, NY 14140
http://members.aol.com/the599rpt/dx.htm

Communication Products
Amateur Radio Sales
7946 S. State St., • Midvale, UT 84047
LOW OVERHEAD
LOW PRICES
Check our website at
http://www.comm-pute.com
Or call:
1-800-942-8873
for the best price!
*We will match any dealer's price on new, current model amateur radio equipment.*



To subscribe call: 1-877-472-8643

**ANAHEIM, CA**
(Near Disneyland)
933 N. Euclid St., 92801
(714) 533-7373
**(800) 854-6046**
Janet, KL7MF, Mgr.
anaheim@hamradio.com

**BURBANK, CA**
2492 W. Victory Bl., 91506
(818) 842-1786
**(800) 854-6046**
Eric, KA6IHT, Mgr.
Victory Blvd. at Buena Vista
1 mi. west I-5
burbank@hamradio.com

**OAKLAND, CA**
2210 Livingston St., 94606
(510) 534-5757
**(800) 854-6046**
Mark, WI7YN, Mgr.
I-880 at 23rd Ave. ramp
oakland@hamradio.com

**SAN DIEGO, CA**
5375 Kearny Villa Rd., 92123
(858) 560-4900
**(800) 854-6046**
Tom, KM6K, Mgr.
Hwy. 163 & Claremont Mesa
sandiego@hamradio.com

**SUNNYVALE, CA**
510 Lawrence Exp. #102
94085
(408) 736-9496
**(800) 854-6046**
Ken, K1ZKM, Mgr.
So. from Hwy. 101
sunnyvale@hamradio.com

**NEW CASTLE, DE**
(Near Philadelphia)
1509 N. Dupont Hwy., 19720
(302) 322-7092
**(800) 644-4476**
Rick, K3TL, Mgr.
RT.13 1/4 mi., So. I-295
newcastle@hamradio.com

**PORTLAND, OR**
11705 S.W. Pacific Hwy.
97223
(503) 598-0555
**(800) 854-6046**
Rich, KK7PL, Mgr.
Tigard-99W exit
from Hwy. 5 & 217
portland@hamradio.com

**DENVER, CO**
8400 E. Iliff Ave. #9, 80231
(303) 745-7373
**(800) 444-9476**
Joe, KDØGA, Mgr.
John, N5EHP, Mgr.
denver@hamradio.com

**PHOENIX, AZ**
1939 W. Dunlap Ave., 85021
(602) 242-3515
**(800) 444-9476**
Gary, N7GJ, Mgr.
1 mi. east of I-17
phoenix@hamradio.com

**ATLANTA, GA**
6071 Buford Hwy., 30340
(770) 263-0700
**(800) 444-7927**
Mark, KJ4VO, Mgr.
Doraville, 1 mi. no. of I-285
atlanta@hamradio.com

**WOODBRIDGE, VA**
(Near Washington D.C.)
14803 Build America Dr.
22191
(703) 643-1063
**(800) 444-4799**
Mike, N4MDK, Mgr.
Exit 161, I-95, So. to US 1
woodbridge@hamradio.com

**SALEM, NH**
(Near Boston)
224 N. Broadway, 03079
(603) 898-3750
**(800) 444-0047**
Chuck, KM4NZ, Mgr.
sales@hamradio.com
Exit 1, I-93;
28 mi. No. of Boston
salem@hamradio.com

# 12 Store Buying Power!

# HAM RADIO OUTLET®

**WORLDWIDE DISTRIBUTION**

## KANTRONICS

### KAM '98

- Single port VHF or HF
- RTTY, CW, Packet, GTOR, AMTOR, WEFAX
- GPS, NMEA-0183 compatible
- 6-16 VDC, DB-9 connector port

**Call Now For Your Low Price!**

### GPS Tracker

- GARMIN X12 GPS Built in, Active GPS antenna, KPC-3 Plus ALL in Single package!

NEW!

**Call Now For Special Pricing!**

### KPC-3 Plus/KPC-9612 Plus

High-performance, low power TNC.
Great for packet, and APRS compatible.

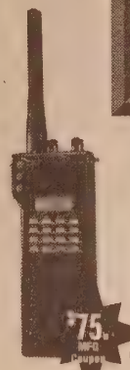
**Call For Special Low Price!**

## GEOCHRON

Detailed illuminated map shows time, time zone, sun position and day of the week at a glance for any place in the world.Continuously moving - areas of day and night change as you watch.• Mounts easily on wall. Size: 34 1/2" x 22 1/2".

**Reg $1295. SALE $999.95**

## ADI



### AT-201HP 2M Handheld

- 40 memories + CALL channel
- Wide receive 130-180 MHz
- Built-in CTCSS enc./dec.
- Full-sized, backlit keypad
- 5 watts RF output

$75. MFG Coupon exp. 9-30-2000

### AT-600HP 2M/440 Handheld

- Wide receive from 100-174, 340-480, and 850-985 MHz (cellular blocked)
- Dual receive • 200 memory channels
- 6 character alphanumeric display
- Crosband repeat • Auto repeater shift
- CTCSS enc./dec. • CTCSS tone scan

$80. MFG Coupon exp. 9-30-2000

### AR-147 Plus

2M mobile

- 3 select. pwr. settings (5/10/60w)
- 80 memories plus a CALL channel
- Built-in CTCSS/DCS encode/decode
- Wide receive cov. 130-171 MHz

**Special Low Price!**

## rfconcepts

### VHF/UHF Solid State Amplifiers

Contemporary design, quality and a 1 year warranty on parts and labor. 1 year on the RF Final transistors.Most amplifiers have GaAsFET receive pre-amps and high SWR shutdown protection

## US TOWER

Shown with Optional Rotor Base

**Call Now For Package Deals**

### MA-40

40' Tubular Tower

**SALE $845.95**

### MA-550

55' Tubular Tower
Handles 10 sq.ft. at 50mph
Pleases neighbors with tubular streamlined look

**SALE $1399.95**

### TX-455

55' Freestanding Crank-Up
Handles 18 sq. ft. @ 50 mph
No guying required
Extra-strength const.
Can add raising and motor drive acces.

Towers Rated to EIA Specifications
Other Models at Great Prices!

**SALE $1599.95**

**Buy From HRO, World's Largest U.S. Tower Dealer**

All US Towers shipped truck collect.

AZ, CA, CO, GA, VA residents add sales tax. Prices, specifications, descriptions, subject to change without notice.

Look for the HRO Home Page on the World Wide Web
http://www.hamradio.com

**COAST TO COAST FREE SHIPPING**
UPS - Most Items Over $100
Rapid Deliveries From The Store Nearest To You!

# QSL Managers

| | |
|---|---|
| 1AØKM | IKØFVC |
| 3A/N5TJ | N5TJ |
| 3A/OH1RY | OH1RY |
| 3A/OH2BH | OH2BH |
| 3A/OH2TA | OH2TA |
| 3A/OH4GN | N4GN |
| 3A/OH9MM | OH3LQK |
| 3A/WC4E | WC4E |
| 3A2K | 3A2ARM |
| 3DAØCF | K5LBU |
| 3DAØEW | K5LBU |
| 3W2B | XW2A |
| 3W2US | N2OO |
| 3ZØBOB | SP7LZD |
| 4LØDXP | K1WY |
| 4L1DW | LZ1YE |
| 4L4MM | ON4CFI |
| 4M5E | YV5NWG |
| 4N1DX | K1WY |
| 4N1S | YU1BKL |
| 4N1YL | K1WY |
| 4S7SW | ON6TZ |
| 4U1ITU | bureau |
| 4W6GH/p | CT1EGH |
| 5A21PA | K1WY |
| 5A3Ø | K1WY |
| 5B4/UA9YA | BUA9YAB |
| 5I3A | A47RS |
| 5K9AQ | HK3PXA |
| 5R8ET | K1WY |
| 7A32AR | YBØFMT |
| 7P8AA | DL7VRO |
| 7S3OWG | SM3CVM |
| 7X3A | OK1FLK |
| 8P9HW | G4IOQ |
| 8P9JM | K2ZD |
| 8R27CC | 8R1WD |
| 9A1CZZ/p | 9A2DM |
| 9A2ØJ | 9A5AZZ |
| 9J2RA | K6SLO |
| 9K2/SP5UAM | SP5PBE |
| 9M2XA | JF4WPQ |
| 9M6JU | JA1RJU |
| 9V9HQ | AA5BT |
| A35IQ | G4PIQ |
| A52NL | JA6NL |
| A61AO | N1DG |
| A61AT | IT9ZGY |
| AX1TX | K1WY |
| AX8AM | VK8AM |
| B4R | BY4RSA |
| BV4FH | K1WY |
| CEØZ/LU7FOM | pirate |
| CO6YP/HH | CM6LK |
| CQ1CA | CT1BXE |
| CT3/SM3CVM | SM3CVM |
| CU3DJ | KZ5RO |
| CU3DX | CU3EJ |
| CV1AA | Bureau |
| D3SAF | I3LLH |
| DAØHQ | Bureau |
| DL2OOO | DF7ZH |
| DSØDX/4 | HL1XP |
| DU1/DK3GI | DL2MY |
| DU3NXE | W3HNK |
| E2ØHHK | E21EIC |
| E2ØREX | E21EIC |
| ED4MAD/1 | EA4RCU |
| ED4SCY | EA4CTF |
| EMØHQ | UX2MM |
| EM1KY | UT7UA |
| EM3QMD | UR5QRB |
| EM5UIA | UT8LL |
| EO225EA | UT2EA |
| EP2AC | RV6AB |
| ER23ØC | ER5AA |
| ER7HQ | ER1FF |
| ESØ/SM3BDZ | SM3CVM |
| ESØ/SM3CVM | SM3CVM |
| ES1QX/8 | ES1QX |
| ET3BT | K1WY |
| EV5A | EW1WA |
| EV5V | EW6WF |
| EW5HQ | Bureau |
| F5KAI/P | F1CSZ |
| FOØCLA | F6CTL |
| FOØMCC | KH7FQ |
| FOØMEX | JL1MEX |
| FOØMOT | OM2SA |
| FOØPT | DJØFX |
| FP/AI5P | AI5P |
| FP/KT1J | K1WY |
| GD3LSF | K1WY |
| GIØPCU | K1WY |
| GI3MUS | K1WY |
| GI6YM | K1WY |
| GS3EEO/P | G3OCA |
| GUØCGL/P | GØCGL |
| HBØCZS | K1WY |
| HFØPOL | SP3WVL |
| HI3/W4DT | K1IED |
| HSØ/SM3CVM | SM3CVM |
| HSØ/SM3DYU | SM3CVM |
| HS2ZIU | E21EIC |
| HS4BPQ | E21EIC |
| IR4B | IK4AUY |
| IU2HQ | I2MQP |
| J28EW | F5KEE |
| J28FF | F6ITD |
| J28NH | F5IPW |
| J75KG | N2AU |
| JT1FCY | I1QOD |
| JT1FCZ | I1ZB |
| JT1FDA | KO6UW |
| JT1FDB | DL2ECW |
| JW5RIA | LA5RIA |
| JW6VJA | LA6VJA |
| JW7M | LA7M |
| K1USN | W1QWT |
| KHØ/KG8CO | K8AA |
| KHØ/N2ATT | JA3AER |
| KHØ/WH7C | JG1OUT |
| KH2/KG8CO | K8AA |
| KH2/N2NL | W2YC |
| KL7/DL1YMK | DL1YMK |
| KL7/K6ST | N6AWD |
| KP2/AG8L | NN6C |
| KT1J/CY9 | K1WY |
| KW1JY | K1WY |
| KW1WY | K1WY |
| LA/DF8KF/m | DF8KF |
| LA/SM3CVM | SM3CVM |
| LXØHQ | LX1KQ |
| LZ1KMS | LZ3GM |
| N9EAJ/6Y5 | N9EAJ |
| OHØJJS | OH6LI |
| OH1/IK3GES/p | IK3GES |
| OH3X | OH3RM |
| OJØVR | OH1VR |
| OLØHQ | OK1MD |
| ON4CAT | K1WY |
| ON9CAT | K1WY |
| OS2VCM | ON4CCP |
| OTØW | ON2AAC |
| OTØX | direct ON6DP |
| OX/MØRAA/p | JH6VLF |
| P29CC | K1WY |
| P4ØM | WGØM |
| P4ØZY | DF7ZY |
| PA6HQ | PA3CAL |
| PYØFF | W9VA |
| R2/DK8LV | DK8LV |
| R2/UA6LV | UA6LV |
| R3SRR/2 | Bureau |
| RAØLOM/Ø | UA0MF |
| RA9LI/9 | DL6ZFG |
| RI1OSO | UA1ANA |
| RI4M | RN4LP |
| RMØM | UAØMF |
| RM1O | UA1ANA |
| RUØAK | K1WY |
| RZ9DX/Ø | RW6HS |
| S21J | K1WY |
| S21YE | G4VLV |
| S21YI | 7M4PTD |
| S5/UT5UGR | UT5UGR |
| S5/UU2JZ | UT5UGR |
| SI9AM | SM3CVM |
| SK3A | SM3CVM |
| SK3JR | SM3CVM |
| SM3BDZ | SM3CVM |
| SM3X | SM3CVM |
| SNØEMK | SP9PLR |
| SV1CEI/8 | SV1CEI |
| SV5/VE3EXY/p | VE3EXY |
| SV8/ON5CT/p | ON5CT |
| SV8/SM3CVM | SM3CVM |
| T88AY | JA7AYE |
| T98JV | HA8JV |
| TA/SM3CVM | SM3CVM |
| TAØ/IZ7ATN | IKØCKJ |
| TA2DS/Ø | WA3HUP |
| TF/LA2IJ | LA2IJ |
| TF/MØRAA/p | JH6VLF |
| TF7GX | K1WY |
| TF7RX | K1WY |
| TF8GX | K1WY |
| TF8RX | K1WY |
| TK/IN3XUG | IN3XUG |
| TOØDX | K1WY |
| TT8JLB | F5BAR |
| TX8JNN | JA1EOD |
| UAØACG | K1WY |
| UAØAOZ | K1WY |
| UAØDC | K1WY |
| UAØZBK | K1WY |
| UEØLVL | UAØMF |
| UEØLVL | UAØMF |
| UE1NIP | UA4HUR |
| UE3MIR | RV3ACA |
| UN7QX | W7BO |
| UW5Q | UR3QCW |
| UW7C | UT7UW |
| V63KP | K8AA |
| V63KQ | K8AA |
| V63KR | K8AA |
| V7/K3VN | K3VN |
| VB3SF | VE3UUH |
| VC6X | VE6BF |
| VD1VIK | VO1UL |
| VE7RAC | VE7DK |
| VI5ØBDX | VK4XY |
| VK1TX | K1WY |
| VP2EREM | WB2REM |
| VP2MDC | G3TBK |
| VP2MHS | W1LR |
| VP2MHX | W4WX |
| VP5/RA9CO | UA9DD |
| VYØQL | VE8QL |
| VYØVDO | VE3DO |
| W4JKC/KH4 | W4JKC |
| WA4RX/CY9 | N2AU |
| WP2Z | KU9C |
| WV2B/CY9 | N2AU |
| XT/F5ADE | F5ADE |
| XU7AAP | N2OO |
| XU7ABE | JAØSC |
| YI1DKS | IK2DUW |
| YI1SEA | WA3HUP |
| YI9OM | OM6TX |
| YJ8WR | VK6JR |
| YMØKA | TA1KA |
| YO6AVB | K1WY |
| YP1W | YO3JW |
| YT1Z | YU1ACR |
| YZ4ED | bureau |
| YZ4IZ | bureau |
| ZD7VC | K1WY |
| ZD9BV | W4FRU |
| ZK1AND | AB7FS |
| ZK1AXU | PA3AXU |
| ZL3KIM | K1WY |

3A2ARMA.R.M., P.O. Box 2, MC 98001, Monaco Cedex

4N1DXZrinko Zibert Zik, 99 plih boraca 7, YU-11277, Ugrinovci, Serbia, Yugoslavia

4W6MMThorvaldur Stefansson, P.O. Box 3699, Darwin, NT 0801, Australia

5H3RKRalph Karhammar, P.O. Box 9274, Dar es Salaam, Tanzania

5X4CFr. Sebastiano Bianchi, P.O.Box 43, Lira, Uganda

A22HHP.O. Box 13, Maun, Botswana

A47RSP.O. Box 981, Muscat 113, Sultanate of Oman

CQ9SMadeira Team, P.O.Box 19, 9001-901 Funchal, Madeira, Portugal

CT1EEBJose Emanuel Ribeiro de Sa, Apartado 79, 3860 Estarreja, Portugal

CT1EGHAntonio Alberto Lopes Pereira, R Guerra Junqueiro, 25-A, Vale de Milha, Corroios 2855, Portugal

CU3EJLeonel Gaspar Cardoso Avila, Canada das Almas 49, S. Pedro, 9700 Angra do Heroismo, Portugal

CV1AARadio Club Uruguayo (RCU), P.O. Box 37, 11000, Montevideo, Uruguay

DAØHQLothar Wilke, Eislebener Str. 14, D-99086 Erfurt, Germany

DL7VROFritz Bergner, Sterndamm 199, D-12487 Berlin, Germany

E21EICChamp C. Muangamphun, P.O. Box 1090 Kasetsart, Bangkok 10903, Thailand

EA1BDJuan Sanchez Marsilla, P.O. Box 457, 39080 Santander, Spain

EK8WBP.O. Box 50, Gyumri, Armenia

F1CSZClaude Masset, 301 rue verte, 62575 Heuringhem, France

FR5ZQHenri Namtameco, Rampe de Saint-Francois, 5052 tour de la Chaumiere, 97400 Saint-Denis, France

GB3RSRSGB Headquarters, Lambda House, Cranborne Road, Potters Bar, Herts EN6 3JW, England

IKØFVCFrancesco Valsecchi, Via Bitossi 21, 00136 Roma - RM, Italy [479]

IK1QBTTony Gallo, Via Capo S.Spirito 1/16, 17052 Borghetto Santo Spirito - SV, Italy

IK1YEKVincenzo Firpo, Via Cavasola 15/3, 17024 Finale Ligure - SV, Italy

IK1ZOZNino Mallamaci, reg.Fenarina 15, 17021 Alassio - SV, Italy

IK4AUYSergio Cartoceti, Via di Corticella 241, 40128 Bologna - BO, Italy

ISØJMARoberto Alaimo, P.O. Box 41, 07026 Olbia - SS, Italy

IT9NGNP.O. Box 16, 98042 Pace del Mela - ME, Italy

IT9UHFP.O. Box 16, 98042 Pace del Mela - ME, Italy

IT9ZGYPietro Marino, Via Cagliari 12, 90133 Palermo - PA, Italy

IZØCKJAlessio Roma, P.O. Box 22, 03023 Ceccano - FR, Italy

IZ1DFIGianni Pastorino, Via Clavesana 68, 17054 Andora - SV, Italy

JAØSC Hirotada Yoshiike, 722-1 Shiba Matsushiro-Cyo, Nagano-City 381-1214, Japan

JA6NLIsamu Kamibeppu, 2-5-710 Nissin-cho 2 chome, Kawasaki 210-0024, Japan

K1WYThe K1WY DX Association, P.O. Box 2644, Hartford, CT 06146-2644 USA

K1WYThe K1WY DX Association, P.O. Box 90, Eeklo 9900, Belgium

K4TSJDudleys DXers of N.E. Georgia, c/o S. Harrell, 2011 New High Schools Road, Watkinsville, GA 30677, USA

KG6AR/4Chris Williams, 220 Woods Landing Lane, Callaway, VA 24067, USA

KU9CSteve Wheatley, P.O. Box 5953, Parsippany, NJ 07054, USA

LU2AHRaynaldo JM Szama, Gorostiaga 2320 15-A, 1426 Buenos Aires, Argentina

LXØRLAlf. Rischette Shack du Ri, Rue Alphonse Munchen 25, 2172 Luxembourg

LY1RMDLY QSL Bureau, P.O. Box 1000, LT-1001 Vilnius, Lithuania

ON6DPPaul Delmelle, Grand Route 58, B-4122 Neupre, Belgium

PAØLOUL. van Nadort, Laarpk 34, 4881 ED Zundert, The Netherlands

PA3AXUG.A.M.C. Dijkers, Dokter P.A. Cornethof 3, 6669 AZ Dodewaard, The Netherlands

PA6HQPWE Pape, Brasem 271, 2986 HC Ridderkerk, The Netherlands

RN4LPVladislav Lakeev, P.O. Box 208, Dimitrovgrad, 433512, Russia

RV3ACAElen V. Boychenko, P.O. Box 13, Moscow, Russia, 127521

RW1QUEugenij M. Sabinin, P.O. Box 19, Cherepovets, 162609, Russia

SK9HQc/o SSA, Box 45, SE-191 21 Sollentuna, Sweden

SM3CVMLars Aronsson, Lillfjallvagen 62, S-831 71 Ostersund, Sweden

SV1SVRAAG, P.O. Box 3564, 10210 Athens, Greece

T9ØHQ ARABiH, P.O. Box 61, 71001 Sarajevo, Bosnia-Hercegovina

UAØMF Mike Filippov, P.O. Box 20, Vladivostok 690021, Russia

UAØSJ Yuri A. Maltsev, P.O. Box 2304, Bratsk-city, 665700, Russia

UR3QCWRuslan Chernyavskye, P.O.Box 4848, Zaporozhye 69118, Ukraine

UR5QRBYuri Kazakevich, P.O. Box 146, Berdyansk - 8, 71108 Ukraine

UR5ZELYuri Turbel, P.O.Box 43, 54003, Nicolaev-3, Ukraine

UT5UGR Dimitry Stashuk, P.O. Box 115, Kiev-147, 02147, Ukraine

UT7UWYuri Zaskaleta, P.O. Box B-32, Kiev 01001, Ukraine

V51AS Frank Steinhauser, P. O. Box 2516, Swakopmund, Namibia

VE6BFBill Metcalfe, 5704 48 Avenue, Beaumont, AB T4X 1C3, Canada

VE7DKDennis Livesey, 8309 - 112 Street, Delta, BC V4C 4W7, Canada

VK8CWThorvaldur Stefansson, P.O. Box 3699, Darwin, NT 0801, Australia

VK9LOOW. Snider, 3482 Sky Crest Drive, Yankee Hill, CA 95965, USA

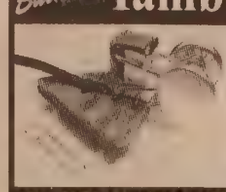
VK9NSJim Smith, P.O. Box 90, Norfolk Island, NI 2899, Australia

W7OMel Hickman, P. O. Box 2234, Walla Walla, WA 99362, USA

W9DCDon Chamberlain, 2 Coxswain Place, Salem, SC 29676, USA

XE1LMFMRE, P.O. Box 907, 06000 Mexico D.F.,


COAX-SEAL®
"The Original Connector Sealant"
MOISTURE PROOFS ALL COAX CONNECTORS
Universal Electronics, Inc.
4515 Little Savannah Rd. • Cullowhee, NC 28723
(828) 293-2222 • FAX: (828) 293-2221

Build a Iambic Key $24.95

Rivals the feel of full size keys!
Adjustable spacing and tension
1oz, 2"W x 2.5"L x 1.5"H
3' pre-wired cable with 1/8" plug
Money Back guarantee!
Visa/Master Card Accepted
Add $2.50 S&H
TOLL FREE 1-877-227-9139 - AmateurRadioProducts.com

THE QSL MAN®
Since 1979, Quality, Service, and Value!
Free samples
Wayne Carroll, W4MPY
P. O. Box 73
Monetta, SC 29105-0073
Phone or FAX (803) 685-7117
URL: http://www.qslman.com
Email: w4mpy@qslman.com




To subscribe call: 1-877-472-8643

# Dayton 2000 Youth Forum

This year's Youth Forum at Dayton was one of the best it has ever been my privilege to moderate. Every year I leave Dayton with an optimistic outlook about the future of Amateur Radio. This year was no exception.

The talent and the eloquence of the young speakers was a pleasure to behold. Amory Schlender KCØBPB, 14 years old, was the first speaker. Amory is an accomplished musician who belongs to BARC JR. (Boulder Amateur Radio Club). This young group under the tutelege of Ellie and Rip Van Winkle and lots of other wonderful "elmers" has consistently produced terrific speakers at the Youth Forum for the past several years. They are to be commended for their dedication and hard work on behalf of our young people.

Amory explained how the discipline and basic electrical principles he had learned in Ham radio influenced him in his chosen career pursuit of engineering and his present job as a professional radio disc jockey. It was the fusion of his interest in Ham radio with his love of music that lead him to his position as the disc jockey on "Amory's Good Music Show" which be jokingly announced airs during prime time — in Japan.

Patrick Clark KC8BFD, 16 years old, is from West Virginia and is very much involved with ARES and RACES. He enjoys working with emergency volunteer groups and is active in providing communications for parades and walks.

Patrick had an excellent slide presentation as he discussed simulated emergency training sessions. He also showed us a video clip of local Hams who provided help to their police and fire departments in anticipation of Y2K problems a few months ago. Patrick enjoys being part of the action and encouraged everyone to contact their local emergency coordinators to help out.

Nick Lance Jr., KC5SWM, is 11 years old and is from Clear Lake City, a suburb of Houston, Texas, in the shadow of the NASA Johnson Space Center. Nick got his technician license while he was in the first grade. He enjoys supporting public service events.

Earlier this year Nick's fifth grade science teacher gave his class an assignment to produce a 90-second radio program to submit to the Earth and Sky Radio Program's Young Producer's Contest. Nick's entry was on the ionosphere and was selected as one of the 5 winning entries. His program was aired across the country on 11 May.

Nick used a 35mm slide show to tell the story of how he and his friend Chester produced the 90-second radio show. He played the excellent tape for us at the end. All during his presentation Nick explained how his interest in Ham radio was what lead him to be able to produce this creative and informative program.

The last speaker was Jimmy Lynch, KBØVXC, age 14, who is also a member of BARC JR. Jimmy spoke of the importance of Ham radio in the family and about foxhunting experiences. His grandfather is a Ham, but it was Jimmy who got his dad to become one too. They now easily communicate from Colorado to his grandfather who lives in Pennsylvania. When they go to visit now, his grandfather shows Jimmy and his dad how to build equipment. They really love how Ham radio has given the three of them so much in common.

Jimmy loves foxhunting and pointed out how it can be used as a family activity. He had a great slide presentation and explained how the purpose of the foxhunt was to simulate search and rescue efforts.

Unfortunately, 11 year old Zane Wruble, W2YL, was unable to make it to Dayton due to a cancelled flight because of the bad weather. We'll look forward to hearing from her next year.

My personal thanks go to the nice folks at MFJ and Icom who have been consistent in their support of my Youth Forum. They donated radios, kits, and helped Hams like Bill Nesbitt, KGØZI, and Ralph Irish, WA8GDT, and his L'Ause Creuse ARC make donations to the kids as well. My thanks to all the terrific, articulate youngsters who did presentations and to all the young adults in the audience who we hope were inspired to join us in the hobby.

Does your club have a program to introduce Amateur Radio to youngsters? Or, have you, yourself, demonstrated your hobby to a younger person? I'd like to hear about it!

*— Write Carole Perry, WB2MGP, at: 28 Keune Court, Stanton Island, NY 10304; or wb2mgp@ix.netcom.com.*

Absolutely Incredible!!

WORLDRADIO now in its 30th year!

All this information, for less than $1.25 a month!

WOW!

Is this a great bargain?

Take advantage of it before we come to our senses.
One year subscription (12 packed issues) *WORLDRADIO*, only $14.79

Call 877/472-8643
or write to
2120 28th Street
Sacramento, CA 95818
e-mail: *subscribe@wr6wr.com*
or on the web:
*www.wr6wr.com*
Visa, MasterCard, American Express

All this news, features, columns for the price of a candy bar. Spectactular!

Bill Pasternak, WA6ITF

# Is a digital voice repeater in your future?

As most of you know, I work in the television broadcasting industry, now in transition as we slowly shed our analog past and enter the world of Digital Television or DTV.

At the outset, let me say I am not necessarily referring to High Definition television. HDTV is a small part of a much bigger equation called DTV. Unfortunately the media has come to equate HDTV with DTV and seems to use the two terms interchangeably. I suspect this is based on the fact that many of those reporting on the nightly news have no technical background.

Many do not realize that the accurate information is no farther than the guy or gal behind the camera or in the control room which is connected to the transmitter and antenna bringing the image (and audio) to tens of thousands of viewers. As a result, you hear the acronyms DTV and HDTV used interchangeably, even though they are really two different worlds.

What if a variation on this technology could be adapted to voice repeaters? If you can transmit four or five simultaneous TV signals in a 6 MHz-wide spectral parcel, why not four or five "voice quality" digital signals on a standard +/- 5 kHz-wide repeater pair? Impossible you say? Well don't tell that to one "next generation" repeater-putter-upper in the Southeast who believes he can. And don't tell the mid-America proponent of a repeater designed to re-transmit packetized digital audio that he will never make it work. Both amateurs have been working independently on similar projects from diverse approaches and both say they are now ready to test their theories on the air. Both have applied for coordinated repeater pairs in their geographic regions and both have received the same basic reply from their respective coordinators. In one word: "Huh?"

At least on the surface, it appears as if the coordination community is not prepared to handle the coming digital age. Like so many broadcast engineers that I know, they are a collective mindset steeped in the analog way of doing things. I went through this denial phase myself until my place of employment received the FCC mandate to have a DTV signal on the air by a given date or face sanctions.

I think the coordination community missed a golden opportunity to enter into the beginnings of the digital communications age over a decade and a half ago when most voice repeater coordinators decided it was outside their domain to coordinate local packet radio operations. Instead of taking the time as a collective to educate themselves, the coordinators told the proponents of packet to form their own groups, handed them a few slivers of spectrum and told them to set up their own channelization schemes. The voice repeater coordinators were blind to the future then, and as the digital voice age dawns on Amateur Radio, they seem just as locked into the analog FM world as they have been the past 30 to 40 years.

It's true that FM voice repeaters outnumber digital voice relay systems by at least 4,000+ to 2 as this is written in early July of 2000. But in the late 1950s there were no voice relay boxes when the late Arthur M. Gentry, W6MEP, put the world's first practical voice repeater, K6MYK, into operation atop Mt. Lee overlooking Hollywood, California. Nor was Art without opposition. As he told me in one of our numerous conversations, the world was filled with amateurs who opposed the concept of relay communications because it was not one-on-one AM.

W6MEP's "repeater" shook up their very stable world of Ham-to-Ham/point-to-point contacts. It violated the Amateur Radio traditions of the times and was therefore an enemy to be reckoned with.

Repeaters and FM were far from the end of the Amateur Radio Service. In fact, they signaled a brand new beginning and probably the single most important rallying point to keep the service alive in the years that followed the ill-conceived and ARRL-inspired Incentive Licensing debacle.

I've long believed that if not for VHF AM operations, and eventually, FM and repeaters, Amateur Radio would long ago have been a dead issue. The myopic ARRL politicians of their era that inspired Incentive Licensing were probably rather chagrined at this unexpected outcome, but they, by then, were totally powerless to stop it because most of us on VHF did not even know that the ARRL existed and those few who did, really did not care!

The VHF community by and large ignored the very existence of the ARRL and some of those involved in FM and repeaters still hold at least a mild distrust of the political arm of the League. In my view, the only reason that a dialogue ever developed at all between the ARRL and the coordination community aspect of VHF/UHF has to do with the decade-long efforts of one person, former ARRL 1st Vice President Steve Mendelsohn, W2ML. He came from the world of FM and repeaters. He understood the wants, needs and desires of those involved in FM and repeaters. With him gone from the scene, I cannot wonder if the two-way lines of communication that W2ML opened will continue.

But that subject is for another time. Right now we as an Amateur Radio collective are about to be pulled, possibly kicking and screaming, into a new and

The NiCd Lady Company
Individual Cells – Replacement Packs – Lead Acids
Rebuilding Service – O.E.M. Assembly ... for
• Handheld Radios • Lap Tops • Cellular Phones • Camcorders
• Portable Scanners • Test Equipment • Power Tools
Check into our rebuilding service — Substantial Savings over *NEW!*
Convert your pack to NiMH! Same sizepack — *HIGHER* capacity!
*Call for a price list/or visit our website:* www.nicdlady.com
20585 Camino Del Sol, Unit B • Riverside, CA 92508
(909) 653-8868 • E-mail: nicdlady@nicdlady.com • FAX: (909) 653-5189



To subscribe call: 1-877-472-8643

exciting world of digital two-way communications. We are about to experience a quantum technology leap that will make the hallowed change from spark to continuous wave CW or the jump from full carrier AM voice to SSB pale by comparison. It will be a revolution rather than an evolution and there may be little time for us to adjust to one overwhelming change before another takes its place.

The question is not if it will happen — only when. While it's less than two months since the introduction of a restructured U.S. Amateur Radio service, the early numbers are showing at least a trend toward another cycle of growth. More growth equates with more amateurs coming to the airwaves. Most of these will come into the hobby through to relatively easy-to-obtain codefree Technician class VHF-only ticket. The only question now is how long will it be before their analog voice QSO goes digital and what digital system will be used.

Repeater coordinators here in the year 2000 and beyond will have only two choices. They are going to have to accept that the digital voice revolution in Amateur Radio is here and plan for its implementation or they will disappear as those with what we broadcasters call "digital vision" comes to the hobby and forces them out.

Two amateurs with dreams of digital voice repeaters many not seem very important in a world dominated by analog FM voice machines, but I again note that it only took one man, Arthur M. Gentry, W6MEP, to start the repeater revolution going in our world of Amateur Radio. And while I will not attempt to tell the nation's coordination community how to do its job, I will at least suggest that they hop on board the digital train before it and its proponents pass them by.

One more note — mainly to save myself from having to answer a lot of individual e-mail. I know I was rather vague in referencing the two digital voice repeater projects noted above, and with good reason. Both of the people requested anonymity because they are considering applying for patents and do not want to be besieged with information requests that neither can answer at this time. They have promised to keep me updated and as I learn more, so will all of you.

And this leads us full circle to where we started. The question of whether or not there is a digital voice repeater looming in your future as an amateur? The obvious answer is yes — with or without the cooperation of the current analog FM repeater coordinators.

## KF6VOT to stay off controversial repeater

A Cypress, California, amateur has been granted a short-term renewal of his license, but keeping it is contingent on his staying away from a very controversial Southern California repeater.

On 06 May the FCC set aside Jeffrey Dressler's license to operate as KF6VOT based on complaints received regarding his operating practices. The FCC wrote Dressler asking him to respond to the allegations, which he did. Based on a review of his response and assurances of compliance with the Amateur Service rules, the Commission has issued KF6VOT a one-year license that will expire 10 June 2001. The renewal is contingent on an agreement for him not to operate the W6NUT repeater, the Los Angeles area system on 147.435 MHz (sometimes euphemistically referred to as the animal farm by its own users.)

If the FCC does not receive any valid complaints of rules violations, Dressler will be permitted to apply for a full ten-year renewal license term a year from now. As far as we know, this is one of the first times that an amateur has agreed to stay off a particular repeater in order to keep his license and remain on the air. (From FCC release)

## T-hunter tracks police jammers

An Amherst, Ohio, amateur helped track down some stolen police radios that were being used to harass authorities. As a result, six teenagers have been arrested.

About 9 p.m. on 7 June, Todd Dunlop, KC8EDS, the coordinator of the local Skywarn for Lorain, Erie and Huron counties, overheard the jamming and decided to offer his help in locating the perpetrators. Being a former police officer, Dunlop knew it was time to bring this nonsense to an end before the lives of people in the community and those of police officers were put in jeopardy.

With cooperation of the police, the repeater was kept in constant use. As a result, the jamming continued and this gave Dunlop time to help pinpoint the house from which the signal originated. He gave that information to authorities who then received permission from one of the adults inside the premises to conduct a search.

According to Dunlop the teens had no idea that police officers were even in the house until an officer walked into the room. There the officer found the three allegedly stolen radios in the possession of the teens, who were reportedly using them to jam the input frequency of a police repeater with profanity and threats while challenging authorities to find them.

Todd Dunlop says he hopes that his experience will convince others of the important role Amateur Radio can play for all the nation's communities.

"I hope that situations like this can show public service agencies as well as the general public that Amateur Radio is a useful hobby and that it can be used not only in public service events and SKYWARN weather-related events, but also in tracking down jammers of public service frequencies as well."

The local police seem to agree with KC8EDS. According to reports they have been very open in their praise of Dunlop's efforts on behalf of the community. (From information supplied by KI8HO)

## The best repeater in town

This month we highlight a repeater serving amateurs in the New Castle, Delaware, area with information supplied by Hal Frantz, KA3TWG. Hal writes:

"FM, Repeaters & VHF is my favorite part of ***Worldradio***. I have never written to a magazine before but here goes. My repeater (KA3TWG/R) sponsored by the Penn-Del ARC is on 224.220 MHz and is located atop the world's largest twin-span bridge, the Delaware Memorial Bridge, located in New Castle, Delaware. Wide area coverage, excellent audio and lack of intermod (isn't 220 great?) are but a few of its attributes.

"It is open access, no 'PL' normally required and is open to all. This repeater's primary purpose is to support the SKYWARN program, and to provide on call services as needed to our local police and other public service agencies. The machine has back-up power supplies capable of running it for up to 10 days if needed, a closed auto patch is available via control op for emergency use and has been in service since 14 June 1990.

"We hold a net every Thursday evening at 8:00 p.m. and invite all to check in. Travelers are always welcomed and directions to the many tourist attractions and good places to eat and visit in our area are gladly given.

"This is the only repeater located in New Castle, Delaware on any band so I guess we can say it qualifies for the best repeater in town. Thanks for the excellent articles and I would be honored if you checked out the picture of our repeater site on our club's web site @ www.magpage.com/penndel and signed the guest book.

"Hal Frantz, KA3TWG"

To which we will add: "Hal, thank you for writing to us and telling us about the best repeater in your town."

## How about DX on 6?

A solar storm in early June may have closed down some of the high frequency bands, but it also brought the world above 50 MHz alive with all sorts of DX. On 09 June my neighbor Dave Booth, KC6WFS, woke up early to find stations from Nebraska, the Dakotas and even Connecticut barreling in with 5x9+ signals on 6M SSB. Dave says the opening lasted a solid two hours.

John Moore, W5HUQ in Arkansas reported over the VHF Reflector that he took part in an opening to Europe. John says that at 21:57 UTC he heard IW5BZQ calling CQ on 50.107 MHz. He called him and the two held a brief QSO. John then called a CQ and was answered by G3LTF.

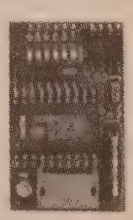
DL5MAE near Munich, Germany, says he was part of a big 2M E-skip opening the same day. Wolfgang also reported over the VHF Reflector that from about 1430 to 1730 UTC he held QSOs with forty-five stations from EA to CT and even CN prefix stations.

Lastly a rare 4M-to-6M contact took place on 11 June at 2041 UTC. The 4M band is a United Kingdom only allocation and it's where GØMRL contacted EH3ADW near Barcelona, Spain. What makes this more interesting is that GØMRL was on 70.400 MHz FM and EH3ADW on 50.160 MHz upper sideband for a cross-band and cross-mode QSO. GØMRL's report was readability 5 and signal strength 9 in Barcelona, from his 35 watts to a half-wave vertical.

On 27 June VE2PZ, near Ottawa, reported hearing the VE8BY beacon at Iqaluit, Nunavut, Canada (grid square FP53) on 50.049 at least two or three times per week. The beacon's signal has been well over S-9 each time it was monitored.

*(FM, Repeater and VHF column author Bill Pasternak WA6ITF, receives mail at 28197 Robin Avenue, Saugus, CA 91350. His 24-hr./day voice and fax line is 661/296-7180. He can also be reached by electronic mail on the following services to the mailboxes: [Internet] newsline@arnewsline.org or [America Online] billwa6itf@aol.com.)*

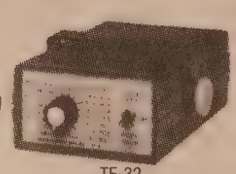

• DIP switch programmable
• Miniature in size
• 37 EIA tones, 27 non-standard tones from 33.0 to 254.1 Hz included
• Reverse Burst built-in
• Easy 3 wire hookup



SS-64 CTCSS Encoder
.66" x 1.08" x .21"

**SS-64 DIP Switch Programmable CTCSS Encoder $28.95**

• Fully enclosed CTCSS encoder
• All 32 EIA tones from 67.0 to 203.5 Hz included
• Perfect for mobile / base applications



TE-32
5.25" x 3.3" x 1.7"

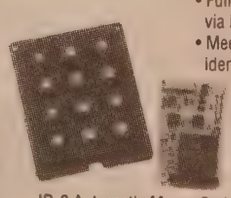
**TE-32 Multi-Tone CTCSS Encoder $49.95**

TP-3200 Shared Repeater Tone Panel

• 51 CTCSS Tones
• 106 DCS Codes
• Supports 157 Repeater Subscribers
• On-Line Computer Help
• Repeater CW ID
• Air Time Loading & Analysis Graphs
• Signalling Formats: CTCSS DCS & DTMF

**TP-3200D Table Top Version $269.95 each**
**TP-3200RM-A Single Rack Mount version $279.95 each**
***TP-3200RM-B Triple Rack Mount version $279.95 each**
*Holds up to three TP-3200s

• Eight programmable, selectable messages
• Fully field programmable via included keypad
• Meets all FCC identification requirements



ID-8 Automatic Morse Code Identifier
1.85" x 1.12" x .35"

**ID-8 Automatic Morse Station Identifier $69.95**

MasterCard VISA

**Call or write to receive our full Product Catalog or visit our Web site for complete information at: http://www.com-spec.com**

**COMMUNICATIONS SPECIALISTS, INC.**
426 WEST TAFT AVENUE • ORANGE, CA 92865-4296
(714) 998-3021 • FAX (714) 974-3420
**Entire U.S.A. (800) 854-0547 • FAX (800) 850-0547**
http://www.com-spec.com




To subscribe call: 1-877-472-8643

# Visit Your Local RADIO CLUB

## ALASKA

**South Central Radio Club.** 8023 E. 11th Ct., Anchorage, AK 99504. Meets 2nd Fri./monthly, 7 p.m., UAA Business Ed. Bldg., Rm. 220. KL7CC, (907) 338-0662. Info: club rptr 146.97(-) PL 103.5Hz 10/00

## ARIZONA

**Arizona Repeater Association.** P.O. Box 35758, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rptrs. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS Shure Building, 2124 W. Cheryl, Phoenix, AZ. Info:www.goodnet.com/indirect/www/ara 12/00

**Cochise Amateur Radio Assn., (CARA).** Meets 1st Mon./monthly, 7:30 p.m. at club facility on Moson Rd., Sierra Vista, AZ. K7RDG/R 146.76(-) rptr. PL162.2. 5/01

**Old Pueblo Radio Club, (OPRC).** P.O. Box 42601, Tucson, AZ 85733. Meets 2nd Wed./monthly, 7:15 p.m., Tucson Med. Cntr., Grant & Beverly St. in the AZ Rm. of the Volunteer's Bldg. (1st bldg. on the left going north off Grant). 2/01

## CALIFORNIA

**Amador County Amateur Radio Club.** P.O. Box 1094, Pine Grove, CA 95665. Meets 1st Thurs./monthly, 7:30 p.m., Jackson Sr. Cntr., 229 New York Ranch Rd., Jackson, CA. Info: 146.835(-). 5/01

**Amateur Radio Club of Anderson, (ARCA).** Meets 2nd Thurs./monthly, 7:30 p.m., VFW #9650, 3210 W. Center St., Anderson, CA. Net every Tues., 7:30 p.m. on 146.640 freq. Website: www.snowcrest.net/bgorski/index.html 2/01

**Beach Cities Wireless Society.** P.O. Box 4016, San Clemente, CA 92674. Meets 2nd Thurs./monthly, 7:30 p.m., Ole Hansen Beach Club, 105 W. Avenida Pico, San Clemente. Rptr. 146.025(+) PL 110.9. 9/00

**Clairemont Rpt. Assoc.** Meets bimonthly brkfst mtg, 3rd Sat./odd no. months, Westminster, CA. Info: send SASE to P.O. Box 7675 Huntington Bch, CA 92615 or W6UTE in Call Bk. Net ea. Tue., 7 p.m. 145.220(-)PL 103.5 in So. CA 3/01

**Coachella Valley ARC.** Box 11092, Palm Desert, CA 92255-1092. Meets 2nd Wed./monthly, 6:30 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/01

**Contra Costa Communications Club, Inc., WD6EZC/R.** P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 08:00, Denny's, El Cerrito, CA 145.110 PL 82.5 Info: S. Clark, KB6SEI, (510) 724-0158. 2/01

**Cupertino ARES (CARES).** Meets 1st Thurs./monthly, 7:30 p.m., Cupertino City Hall, CA. Net ea. Tues. 7:45 p.m. on 147.57 simplex. EC - Jim Oberhofer, KN6PE. www.zoy.net/CARES 6/01

**Downey Amateur Radio Club Inc., W6TOI.** Meets 1st Thurs./monthly, 7:30 p.m., So. Middle Sch. cafetorium, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+) Thurs.,7:30 p.m. http://www.downeyarc.org. Info L. Vaughn, kd6nzw at kd6nzw@downeyarc.org 6/01

**El Dorado County Amateur Radio Club.** P.O. Box 451, Placerville, CA 95667. Meets 4th Tues./monthly, 7:15 p.m., Federated Church, 1031 Thompson Way, Placerville. Web: hhp://edcarc.tripod.com. Net: Thurs., 7:30 p.m. 147.825(-) PL 82.5 6/01

**Fresno Amateur Radio Club.** Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 11/00

**Golden Empire Amateur Radio Society, (VEC).** P.O. Box 508, Chico, CA 95927. Club call W6RHC, rptr. 146.85(-). Meets: 3rd Fri./monthly, 7:30 p.m. at 345 Cherry St. (Library Rm.), Chico. 5/01

**Livermore Amateur Radio Klub, (LARK).** Meets 3rd Sat./monthly, 9:30 a.m., City Council Chamber, 3575 Pacific Ave., Livermore, CA. Net Mon. 1900 on 147.12(+). Info: LARK Sec., P.O. Box 3190, Livermore, CA 94551-3190. (925) 373-1386. 2/01

**Los Banos Amateur Radio Club.** Meets 2nd Sat./monthly, 7 p.m., Los Banos Police Admin. Annex Bldg., 535 J St. Info: M. Germino, AD6AA, (209) 826-0903, E-mail: AD6AA@arrl.net. Net 147.060(+) PL 107.2 every Thur. 7 p.m. Rpt. KB6NMP 147.06(+) PL 107.2 & 444.00(+) PL 241.8. http://www.qsl.net/lbarc/ 6/01

**Motorcycling Amateur Radio Club.** Meets 2nd Sat./monthly, 8 a.m., Lake View Cafe, 2099 E. Orangethorpe, Placentia, CA, 91 Fwy/Lakeview. Info: R. Davis, KD6FHN, (949) 551-1036 or (949) 551-2010. 5/01

**Mount Diablo Amateur Radio Club.** P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 7:30 p.m., Our Savior's Lutheran Ch., 1035 Carol Ln, Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 8/01

**Nevada County ARC.** Meets 2nd Mon./monthly, 7 p.m., Salvation Army Bldg., 10725 Alta St., Grass Valley, CA. Net Tues. 7 p.m. 147.015. Info L. Johnson, KE6HWE, lindasue@mail.telis.org.(530) 273-2008. 9/00

**North Hills Radio Club.** Meets 2nd Tue./monthly, 7:30 p.m., SMUD Bldg., Don Julio & Elkhorn, Sacramento, CA. Nets 8 p.m. Tue., (except 2nd Tue.) & Thur., 145.190(-) PL 162.2 Hz. Info: B. Griffin, (916) 729-7117. E-mail: dixdood@aol.com or nhrc@k6is.org 4/01

**Orange County Amateur Radio Club.** Meets 3rd Fri./monthly, 7:30 p.m., Orange County Red Cross, 601 N. Golden Circle, Santa Ana, CA. Talk-in 146.550 (S). Contact Parry Hoffman, K6LDC, (714) 636-4345 WWW.W6ZE.ORG 2/01

**Poinsettia ARC.** Meets 1st Thurs./monthly, 7:30 p.m., First Christian Ch., Telegraph Rd. & Teloma Dr., Ventura, CA. Info: J. Casper, N6PIQ, (805) 649-1445. 6/01

**Redwood Empire DX Assoc., W6KB.** P.O. Box 455, Santa Rosa, CA 95402. (707) 544-4944. DX & contest club. Dinner mtg. 3rd Wed./monthly, 6:30 p.m., Carrows Rest., Hwy 101 & E. Washington, Petaluma. www.redxa.com 12/00

**River City A.R.C.S.** Meets 1st Tues./monthly, 7:30 p.m., SMUD Bldg., Don Julio at Elkhorn, Sacramento, CA. License classes offered. Info: (916) 492-6115. 10/00

**Sacramento Amateur Radio Club.** Meets 2nd Wed./monthly, 7 p.m. Sac. Blood Ctr., 32nd St. & Stockton Blvd., Sacramento, CA. Info net, noon on rptr. W6AK/R 146.91(-). T. Preston, KC6EO, (916) 722-9358 or L. Ballinger, WA6EQQ, (916) 393-4775. 4/01

**Sacramento "Old Timers" Amateur Radio Society and Sacramento Valley Chapter #169 QCWA (Quarter Century Wireless Assn.).** Meets 2nd Wed./monthly, 8 a.m., Lyon's Rest., 1000 Howe Ave., Sacto. CA. Info: Paul Wolf, W6RLP (916)489-8112. 12/00

**Shasta Cascade Amateur Radio Society, (SCARS).** P.O. Box 493549, Redding, CA 96003. Meets: 3rd Wed./monthly (Sep-May), 7:30 p.m. at the C.D.F. Conf. Rm. Grape St., near Parkview Ave., Redding, CA. Net 146.64, Wed., 8 p.m. 3/01

**Sierra Foothills ARC.** P.O. Box 1005, Newcastle, CA 95658. Meets 2nd Fri./monthly, 7:30 p.m., Auburn Library (Beecher Rm.), 350 Nevada St. Thurs. nets 7:30 p.m. 145.430(-) PL 94.8. 6/01

**Sonoma County Radio Amateurs, Inc. W6LFJ.** P.O. Box 116, Santa Rosa, CA 95402, (707) 579-9608. Meets 1st Wed./monthly, 7:30 p.m., Agilent Tech., 1400 Fountain Grove Pkwy , Santa Rosa. Net ea. Tues., 7 p.m. W6SON. Rptr. 146.73(-) PL 88.5. www.cds1.net/scra 12/00

**South Bay ARC.** P.O. Box 536, Torrance, CA 90508. Meets 3rd Thurs./monthly, 7:30 p.m., Torrance Memorial Hosp., 3330 Lomita Blvd., Torrance, CA. Talk-in on WB6MYD rpt. 244.38(-). Info: (310) 328-0817. 8/01

**Southern California Six Meter Club.** P.O. Box 10441, Fullerton, CA 92635. USB Net Tue., 8:00p.m., 50.150. FM Rpt. Net Thurs., 7:30 p.m., 52.86/52.36 tx. FM Smplx, call freq. 50.300. Net Sun., 10 a.m. 50.40. 12/00

**Stanislaus Amateur Radio Assoc., Inc. (SARA).** P.O. Box 4601, Modesto, CA 95352. Meets 3rd Tues./monthly, 7:30 p.m., NW Modesto Police Station, 2005 Evergreen, Ste. 600. Net 1.2+4 Tues. 7:30 p.m. 145.390(-) PL 136.5 2/01

**Tehachapi-Southern Sierra ARS.** Meets 2nd Thurs./monthly, 7 p.m., except July, 125 East F St., Tehachapi, CA (Veteran's Hall). Info: KD6KMN, (661) 822-5995. www.ssars. net, 147.06(+), 224.42(-) PL 156.7. Pkt 145. 090(S) connect to W6PVG-7. ARES nets 7 p.m. 147.51(S) Mon. 1/01

**Trinity County ARC.** P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County Sch. Adm. Bldg., Weaverville, 7:30 p.m. Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. http://www.tcoe.trinity.k12.ca.us/~tcarc 2/01

**United Radio Amateur Club, K6AA.** L.A. Maritime Museum, Berth 84, Foot of 6th, San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.-5 p.m. 8/01

**Vaca Valley Radio Club.** Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn., Vine St., Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. Jim Bullington, (707) 446-4347 8/01

**Victor Valley Amateur Radio Club.** P.O. Box 869, Victorville, CA 92392. Meets 2nd Tue./monthly, 7 p.m., The Lewis Cntr, 20702 Thinderbird Rd., Apple Valley, CA. Talk-in 146.94(-), PL 91.5. Net Sun. 7 p.m. 146.94(-) 3/01

**West Coast Amateur Radio Club, (WCARC).** P.O. Box 2617, Costa Mesa, CA 92628. Meets 3rd Thurs./monthly, 7 p.m., Fountain Valley Sch. Dist. Office, 17210 Oak St., Fountain Valley, CA. Info: Jane, KD6ODV, (714) 531-6707 2/01

**Westside Amateur Radio Club - Los Angeles.** P.O. Box 11092, Marina del Rey, CA 90295. Meets 4th Tues./monthly, 7:30 p.m., ARC Bldg., 11355 Ohio Ave., W. L.A., CA (VA Cntr. grounds). Net Tues., 8 p.m. 147.195+, PL100, except mtg. night. Website: http://www.qsl.net/wa6rc Messages: (310) 848-1354 9/00

**Willits Amateur Radio Society, (WARS).** P.O. Box 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. 2 NW Willits http://www.saber.net/wars. Talk-in: 145.13(-), PL 103.5. 9/00

**Yolo Amateur Radio Society.** Meets 1st Tues./monthly, 7:30 p.m., Davis Explorit! Science Cntr, 3141 5th St., Davis, CA. Contact Dave Nishikawa, KC6YFG, (916) 756-6375/Talk-in 144.430. 3/01

## COLORADO

**Boulder Amateur Radio Club (BARC).** Meets 3rd Tues./monthly, 7:00 p.m., NIST rm 1107, 325 So. Broadway, Boulder, CO. Talk-in:146.70(-). Info: (303) 380-6540, e-mail: BARC5Ø@arrl.net or www.thisistrue.com/barc.html 8/01

## CONNECTICUT

**Tri-City Amateur Radio Club.** P.O. Box 686, Groton, CT 06340-0686. Meets 2nd Tue./monthly, 7 p.m., St. Lukes Lutheran Church of Gales Ferry on Rt. 12. Info: B. Dargel, KA1BB, (860) 739-8016. 8/01

## FLORIDA

**Gulf Coast ARC.** P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., Marchman Tech. Ed. Cntr., 7825 Campus Dr., Bldg. C, Rm C122, New Port Richey. WA4GDN rptrs. 146.67(-) & 145.33(-), serving all of Pasco County. 11/00

**Lake Monroe Amateur Radio Society.** P.O. Box 151353, Altamonte Springs, FL 32715. Meets 1st Thurs./monthly, 7:30 p.m., Casselberry Sr. Cntr., Lake Triplett Dr., Casselberry, FL. Info: K. Lambert, KB4DCR, (407) 359-7767 10/00

**Port St. Lucie ARA.** P.O. Box 7461, Port St. Lucie, FL 34985. Meets 2nd Fri./monthly, St. Andrews Lutheran Church, 295 Prima Vista Blvd. Contact: Roy Cox, (561) 340-4319. www.qsl.net/pslara or 146.955-. 11/00

**South Brevard Amateur Radio Club.** P.O. Box 2205, Melbourne, FL 32902. Meets 1st Tue./monthly, 7 p.m., Public Library, 540 Fee Ave., Melbourne, FL. 12/00

## GEORGIA

**Cherokee Capital ARS.** Meets 2nd Tue.monthly, 7 p.m., New Echota Methodist Church, 488 Red Bud Rd., Calhoun, GA. 146.805(+). Info: Felton Floyd, AF4DN, (706) 629-0369. 1/01

**Dalton Amateur Radio Club, Inc., (DARC).** P.O. Box 143, Dalton, GA 30722-0143. Meets 4th Mon./monthly, 7:30 p.m., Magistrate Court Bldg., corner of Waugh St. & Thornton Ave., Dalton, GA. Info: Harold Jones, N4BD, 706/673-2291. 5/01

**Gwinnett Amateur Radio Society, (GARS).** P.O. Box 88, Lilburn, GA 30048. Meets 3rd Thurs./monthly, 7:30 p.m., Gwinnett Central Baptist Church on Gwinnett Dr., Lawrenceville, GA. 147.075+ PL 82.5. Contact: Mike Swiderski, K4HBI, (770) 449-0369. 8/01

## HAWAII

**Big Island Amateur Radio Club.** P.O. Box 1938, Hilo, HI 96721. Meets 2nd Sat./monthly, 2 p.m., Keaau Community Ctr., behind Fire Station on Old Volcano Rd., Keaau. Talk-in on 146.88(-). Lunch, 11 a.m. Fridays, Hilo Hawaiian Hotel - Queen's Court Restaurant. 9/00

**Emergency ARC, (EARC).** P.O. Box 30315, Honolulu, HI 96820-0315. Meets 4th Thurs./monthly, 7 p.m., Am. Red Cross, 4155 Diamond Head Rd. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88,146.98(-), 146.94(-). Info: (808) 256-6001, WH6CZB. www.qsl.net/earc/ 12/00

**Koolau Amateur Radio Club, (KARC).** 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Botanical Garden., Kaneohe, HI. Info: (808) 235-3042. http://www.chem.hawaii.edu/karc/ 8/01

## ILLINOIS

**Chicago FM Club Inc., (CFMC).** P.O. Box 1532, Evanston, IL 60204. 146.76(-) PL 107.2/224.10/224.18/443.75 PL 114.8. Ham help line: (773) 262-6773. Info net Tues., 9 p.m. on 146.76(-). Meets 3rd Wed./monthly, 8 p.m. 8/01

**Dupage Amateur Radio Club. (DARC).** P.O. Box 71, Clarendon Hills, IL 60514. Meets 4th Mon./monthly, 7:30 p.m., Fire Station #3, between 59th & 63rd, Westmont, IL. Net Sun., 9 p.m. on 145.250. W9DUP rpts. 145.25(-) 107.2PL, 442.550(+) PL 114.8, 224.68(-). Info: (630) 985-9256 10/00

**Fox River Radio League.** P.O. Box 673, Batavia, IL 60510-0673. Meets 2nd Tue./monthly, 7:30 p.m., Old Bank Bldg., 900 No. Lake St., lower level, Northgate Shopping Ctr. & Rt. 31, Aurora, IL. 8/01

**Peoria Area Amateur Radio Club, (PAARC).** P.O. Box 3508, Peoria, IL 61612. Meets 2nd Fri./monthly, Red Cross Chapter House, 311 W. John Gwynn Jr. Ave., Peoria, IL. Voice mail: (309) 692-3378. Rptrs: 147.075(+) & 146.85(-). 8/01

**Schaumburg ARC.** P.O. Box 68251, Schaumburg, IL. Meets 3rd Thurs./monthly, 7 p.m., Rec. Center, Bode and Springinsguth Roads. (630) 612-9446. http;//members.aol.com/sarcradio 10/00

**The Starved Rock Radio Club, W9MKS.** P.O. Box 198, Tabor St., Leonore, IL 61332. Meets 1st Mon./monthly, 7 p.m. Rptr. net 7 p.m. Wed./wkly., 147.12(+) PL 103.5. Web: http://www.qsl.net/w9mks E-mail: w9mks@qsl.net 6/01

## LOUISIANA

**Baton Rouge ARC.** Meets last Tue./monthly, 7 p.m., Catholic High School, 855 Hearthstone Dr., Baton Rouge, LA. Net: 146.79MHz, 8:30 p.m. Sun. www.brac.org. E-mail: W5GIX@aol.com. 11/00

## MAINE

**Androscoggin Amateur Radio Club.** Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 7/01

## MARYLAND

**Maryland Mobileers ARC (MMARC).** P.O. Box 935, Severn, MD 21144. Meets 1st Fri./monthly, 7:30 p.m., Baldwin Hall, Generals HWY, Millersville. Info net each Mon. 8:30 p.m. on 146.805(-), tone 107.2 Hz. http://www.qth.com/mobileers 7/01

## MASSACHUSETTS

**Genesis Amateur Radio Society.** P.O. Box 1234 Plymouth, MA 02362. Meets last Mon./monthly, 7:30 p.m. at Plymouth Airport, So. Meadow Rd. Tues. net: 146.685, W1LM, 8 p.m. 7/01

## MICHIGAN

**Chelsea Amateur Radio Club, Inc., WD8IEL** Meets 4th Tues./monthly, 7 p.m., Key Bank, 1478 Old Chelsea-Manchester Rd., Chelsea. Info: Bill Altenberndt, WB8HSN, (734) 475-7938 Rpt: 145.450(-). 5/01

**Genesee County Radio Club, Inc.** Meets 3rd Tues./monthly, 7:30 p.m., Genesee Area Skill Center, Torrey Rd., Flint, MI. (810) 733-2082. 3/01

**Hiawatha Amateur Radio Assoc. of Marquette Co.** P.O. Box 1183, Marquette, MI 49855. Meets 1st Thurs./monthly, 7:30 p.m., 108 Stratofort, K.I. Sawyer AFB, MI. For info contact: Richard Schwenke, N8GBA, (906) 249-3837. 10/00

## MISSISSIPPI

**Jackson ARC, Inc.** Meets 3rd Thurs./monthly, 7 p.m., Am. Red Cross Bldg., Riverside Dr., Jackson, MS 39202.11/00

**West Jackson County ARC, Inc.** Meets 3rd Tues,/monthly, 7 p.m., Ocean Springs Crt. Rm., Ocean Springs, MS.1/01

## MISSOURI

**Macon County ARC.** P.O. Box 13, Macon, MO 63552. Meets last Wed./monthly, 7 p.m., Macon R-I High Sch., rm.167. Net every Thurs., 8:30 p.m. 146.805. E-mail: nøpr@arrl.net 1/01

## NEBRASKA

**Ak-Sar-Ben ARC of Omaha.** P.O. Box 24551, Omaha, NE 68124-1551. Meets 2nd Fri./monthly, 7:30 p.m., Red Cross, 81st & Spring St. http://www.qsl.net/k0usa 7/01

## NEVADA

**Frontier Amateur Radio Society, (FARS).** Meets: 2nd Sat./monthly, bkfst. mtg. 9 a.m., Country Inn, 1990 West Sunset, corner of Valle Verde, Henderson, NV. Info: J. Frye, NW7O, (702) 456-5396 or B. Scanborough, WA6ASI, (702) 269-9551 8/01

**Sierra Intermountain Emergency Radio Assoc., (SIERA).** Meets 2nd Tues./monthly, 7:30 p.m., Minden Med. Cntr, Hwy 395 & Ironwood Dr., Minden, NV. Info: George Uebele, WW7E, (775) 265-4278, ww7e@arrl.net, Rpt. 147.330 MHz. 1/01

## NEW HAMSHIRE

**Port City ARC, (PCARC), W1WQM.** P.O. Box 1587, Portsmouth, NH 03802. Meets 1st Wed./monthly (Sept.-June), The Edgewood Ctr., 928 So. St., Portsmouth. Rptr. 146.805(-) PL 127.3, 110.9, 88.5. 11/00

## NEW JERSEY

**Bergen Amateur Radio Association, (BARA).** P.O. Box 304, Hackensack, NJ 07601. Meets 1st Sun./monthly, New Milford Elks Lodge, Patrolman Ray Woods Dr., New Milford, NJ 07646. Nets: 28.350 Mon. 9 p.m., 146.79(-) 9 p.m. Wed. 6/01

**The Garden State Amateur Radio Assoc., (GSARA).** Meets 1st & 3rd Wed./monthly, 8 p.m., MARS Bldg., Fort Monmouth, NJ. Info: B. Buus, W2OD, (732) 946-8615. 12/00

**South Jersey Radio Assoc., (SJRA), K2AA.** Meets Jan.-Oct., 4th Wed./monthly, 7:30 p.m. (Nov.-Dec. 3rd Wed), Bloomfield Fire Hall in Pennsauken, NJ. Talk-in: 145.29(-) rptr. 8/01

## NEW YORK

**Amateur Radio Association of the Tonawandas, (ARATS).** P.O. Box 430, No. Tonawanda, NY 14120. Meets 3rd Tues./monthly (except July & Aug.), 7:30 p.m., Sweeney Hose Co., 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2SEX. 2/01

**Genesee Radio Amateurs, (GRAM).** P.O. Box 572, Batavia, NY 14021-0572. Meets 3rd Thurs./monthly, 7:30 p.m. (except Jul Aug Dec), Salvation Army Com. Cntr, 529 East Main St., Batavia, NY. URL: http://hamgate.sunyerie.edu/~gram 6/01

**Hall of Science ARC.** P.O. Box 150131, Kew Gardens, NY 11415. Meets 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Voice mail (718) 760-2022. 3/01

**PROS, Pioneer Radio Operators Society.** Meets 1st Wed./monthly, 7 p.m., Sardinia Town Hall, Savage Rd., Sardinia, NY. K. Moon, N2IFG, (716) 652-0923. 6/01

**The Radio Club of J.H.S. 22, N.Y.C., Inc. WB2JKJ.** P.O. Box 1052, NY, NY 10002. 24-hr. hotline: (516) 674-4072. Fax: (516) 674-9600. E-mail: crew@wb2jkj. org. Non-profit org. using Ham Radio to enhance the education of youngsters, nationwide. Join us—"Class-room Net, " 7.238 MHz, 7 a.m. E.S.T. PSE QSL! 10/00

**South Towns Amateur Radio Soc. (STARS).** Meets 1st Thurs./monthly, 7:30 p.m., Hamburg Youth Cntr, Prospect Ave.Hamburg, NY (exc. Jul, Aug @ NIKI Base). Info: N2TEZ, 180 University Ave., Depew, NY 14043. Web: www.cmp-express.com/stars. Rpt: WB2ELW 147.090(+) PL107.2 11/00

**Suffolk County Radio Club, (SCRC).** Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. W. Black, KB2YAP, (631) 289-5587 7/01

**Westchester Emergency Comm. Assoc., (WECA).** Meets 2nd Mon./monthly, 7:30 p.m., Westchester County Ctr., White Plains, NY. Contact WECA INFO LINE (914) 741-6606 for details. Talk-in WB2ZII/R 147.06(+) PL 114.8/2A. 10/00

**Westchester FM Repeater Ass'n.** K2JQB Rptr. 146.91 MHz. Meets 3rd Thurs./monthly, 7-9 p.m., Yonkers Pub. Lib., 1500 Central Pk. Ave., Yonkers, NY, near S.E. cornor of Tucahoe Rd. Free Parking. Info: M. Grossman, K2CON at (718) 544-2370 or E-mail: K2CON@ hotmail.com 6/01

**Yonkers Amateur Radio Club, (YARC).** Meets 2nd Sun./monthly, 10 a.m., 1st Pct., Yonkers Police Station, E. Grassy Sprain Rd., Yonkers, NY. Info: P.O. Box 378, Centuck Sta., Yonkers, NY 10710. (914) 963-1021. 146.865(-), 440.150(+). 2/01

## NORTH CAROLINA

**Stanly County Amateur Radio Club.** Stanfield, NC. Meets 4th Thurs./monthly, 7 p.m. Talk-in 146.985(-) for location. Wed. net 9 p.m. 146.985(-). Fri. tech net 9 p.m. 147.390(+). Ph: (704) 888-4815. www.mdsmm.com/scarc/ 5/01

## OHIO

**Ashtabula County ARC.** Ken Stenback, W8KS (964-7316). County Vo-Ed School, Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 1/01

**Clyde Amateur Radio Society (CARS).** Meets 2nd Tue./monthly, 7:30 p.m., Municipal Bldg., Clyde, OH 43410. NF8E rptr. 145.35(-) and 442.625(+) MHz. Net Sun. 9 p.m. Info: E. Remaley, KA8CAS. 10/00

**Western Reserve Radio Assoc.** P.O. Box 81252, Cleveland, OH 44181-0252. Meets 2nd Wed./monthly, 7:30 p.m., Jenkins Communications Cntr., Main St., Olmsted Falls, OH. Info: C. Bade, W8CJB, Sec., 146.73(-), 444.900(+) MHz. 10/00

## OREGON

**Central Oregon Radio Amateurs, Ltd. (CORA).** P.O. Box 723, Bend, OR 97709. Meets last Thur./monthly, 7 p.m., Bend Sr. Ctr., 1036 NE 5th, Bend, OR. 146.940(-) MHz. Info: (541) 388-3831. 10/00

**Central Oregon Coast ARC.** P.O. Box 254, Florence, OR 97439. Meets 2nd Sat./monthly, at Bliss' Route 66 Restaurant at Hwy 101 & 12th St. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 6/01

**Hoodview ARC.** P.O. Box 20624, Portland, OR 97220. Meets 3rd Thurs./monthly, 7:30 p.m., Mt. Hood Com. College/Gresham, Rm 1001. Rptrs: 147.28(+), 448.475(-5) (tone 167.9) 5/01

**Umpqua Valley Amateur Radio Club, Inc.** P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs./monthly, 7:30 p.m., Douglas County Court House, Rm. 310, Roseburg, OR. Info: K6AZW/R 146.90(-) (PL100) or (541) 784-3621. 8/01

## PENNSYLVANIA

**Mercer County ARC, W3LIF.** P.O. Box 996, Sharon, PA 16146. Meets 4th Tue./monthly, 7:30 p.m., Shenango Valley Med. Ctr, Farrell, PA. Net, Thurs. 9 p.m. on 145.35(-) W3LIF, Digi. 145.Ø5. 6/01

**Mid-Atlantic ARC, (MARC), WSNWA.** Meets 3rd Thurs./monthly, 8 p.m., Radnor Mem. Library, Wayne, PA. Rtrs 147.06, 145.13. Net, Sun., 8:30 p,m, http://www.marc-radio.org 11/00

## TEXAS

**Brazos Valley Amateur Radio Club, (B-VARC).** P.O. Box 1630, Missouri City, TX 77459. Meets 1st Thurs./monthly, 7 p.m., Sugar Land Community Ctr., 226 Matlage Way., Sugar Land, TX. 12/00

## VIRGINIA

**Mt. Vernon Amateur Radio Club, (MVARC).** Meets 2nd Thur./monthly (except Dec.), 7:30 p.m., Mt. Vernon Gov. Cntr, 2511 Parkers Ln., Alexandria, VA. Contact: Bob, KT4KS, (703) 765-2313. E-mail: mvarc@juno.com, http://www.mvarc.org/, Net: Tues. 8:30 p.m. 146.655-. 10/00

**Ole Virginia Hams ARC, (OVH).** Meets 3rd Mon./monthly, 8 p.m., Northern Virginia Electric Coop. Tech Cntr, 5399 Wellington Rd., Gainesville, VA. Info: Mary Lu, KB4EFP, (703) 369-2877. http://www.qsl.net/olevahams 3/01

**Portsmouth ARC.** Meets 4th Thur./monthly, 7:30 p.m., Am. Red Cross Chapter house, 700 London Blvd., Portsmouth, VA. Talk-in 146.850. Info: C.I Clements, Pres. (757) 484-0569. http://www.series 2000.com/users/wa4nvi/parc/htm 6/01

**Southern Peninsula Amateur Radio Klub, W4QR (SPARK).** Meets 1st Tue./monthly Sal. Army Com. Bldg., Hampton, VA. Rptrs 146.73(-), 449.55(-). VE Exam Info: (757) 898-8031, W4RTZ. 3/01

**Virginia Beach ARC.** Meets 1st Thurs./monthly, 7:30 p.m., Virginia Wesleyan College, Wesleyan Dr. off N. Hampton, Village 2 Commons, Graybeale Bldg., Virginia Bch, VA. 2/01

## WASHINGTON

**The Mike & Key Amateur Radio Club.** Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) (103.5 CTCSS) rptr. Doors open 9:30 a.m. 5/01

## VIRGINIA

**Woodbridge Wireless, Inc. (WWI).** Meets 2nd Tues./monthly, 7:30 p.m., Canteberry Woods Comm. Cntr.(corner of Springwoods & Chaucer), Lake Rige, VA. Talk-in 147.24(+). For info: http://www.pwcweb.com/wwi/ 7/01

## WEST VIRGINIA

**Jackson County ARC.** Meets 1st Thurs./monthly, 7:30 p.m., St. John Episcopal Church of Ripley. Net Mon. 9 p.m. on 146.67(-) WD8JNU/R. Info: D. Tennant, N8ZYB, Rt. 1, Box 188, Mt. Alto, WV 25264. 7/01

**Tri-State Amateur Radio Assn.** Meets 3rd Tues./monthly, 7p.m., Museum of Radio & Tech., 1640 Florence Ave., Huntington, WV 25701. (304) 525-8890. 6/01

## WYOMING

**Sheridan ARC.** Meets every Sat. at Bubba's, 7:30 a.m. exit 23 off HYW I-90, Sheridan, WY. Club call: W7GUX, 146.22/82. Info: G. Roelfsem, K7GR 8/01

**University ARC.** Meets 1st Tues./monthly, 7:30 p.m., Univ. of WY, Engineering Bldg., rm. 2100, Laramie, WY. 146.01/61. 12/00

## NATIONAL

**Bicycle Mobile Hams of America.** 46 states/6 nations membership. Annual Forum at Hamvention. Info, sample newsletter, e-mail address to: hartleyal @aol. com or, SASE to BMHA, Box 4009-W, Boulder, CO 80306-4009. 2/01



To subscribe call: 1-877-472-8643

# Amateur Radio on the weather ships

Jack Main, W4YCZ

If anyone had asked me in 1977 if I was a sailor, I would probably have said, "NO," even though I had averaged seven months a year at sea for the past 27 years. I was a seagoing weather man and my main duty was tinkering with 72.2 Megacycle balloon borne weather transmitters which we sent up twice a day from the weather ships in the Atlantic Ocean. We sailed aboard Coast Guard Cutters from ports along the East Coast and were at sea five to seven weeks at a time.

Amateur Radio was not allowed on the ships so we were cut off from the rest of the world except for a few short wave broadcasts we could hear. One of our stations was so far north that most signals were absorbed by the Aurora. I had been an avid short wave listener most of my life so my ear was always glued to the wardroom receiver.

During one inport period, a friend of mine in Roanoke introduced me to Ham radio. I was fascinated and bought several books to study on my next voyage. I hadn't thought about learning the code, but after reading the books decided I must learn the code this trip, too. Our weather balloons dangled reflectors made of balsa wood and foil so I decided to fashion a crude Morse key from these materials. Instead of an oscillator, I connected a water activated battery to one of the radiosonde transmitters, cut off the wire antenna and listened to myself transmitting barely across the room to the radiosonde receiver. I'm sure that this was not exactly legal but 72.2 MC in the middle of the ocean with no antenna wouldn't carry far enough to interfere with Chanel 4 TV.

I taught myself code by sending only. What a surprise to find out that I couldn't copy 5 wpm when I got home!

Back to the drawing board using the new Hallicrafters S40B which was on standby waiting for the day my license arrived. It wasn't long before my speed was up enough to chance taking the test. Armed with all my book learning, I marched down to the FCC and took my Novice Class exam. I had to sail again before my license arrived and it was in my mailbox when I returned. I then ordered my first transmitter, a Lettine 240, 75 watt AM and CW rig. By the time it arrived, I was at sea again. At the end of my one year license period I had managed to operate about four weeks. Due to much time at sea and also getting married, I didn't get my General Class license until seven years later.

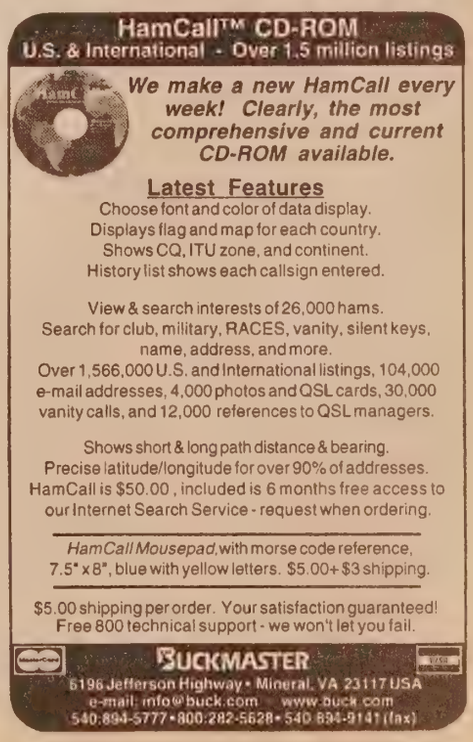
This time I wanted to be one of the big guns and built a Heathkit HW 32 with the astounding power of 100 watts.

It wasn't until 1964 that one Coast Guard Captain granted my request to bring my rig along. It was to be a long trip as we planned to go to Ireland for a visit after our weather patrol. I explained to him how nice it would be to be able to call home and talk to our loved ones. I was bluffing as I had no idea how propagation would be from Ocean Station Charlie and I didn't have a clue as how to conduct a phone patch. As luck would have it, conditions were great all the way across the Atlantic and the skipper had found a Ham near his house in New London so his wife could talk with him direct. The operation was so successful that he wrote the Commandant of the Coast Guard and recommended that Ham radio be installed on all the Cutters. This did ultimately happen. In the meantime, there was Jack and his radio station in a suitcase — the transceiver, cables, microphone, log book and a hustler mobile antenna. My services were in great demand and I think my supervisors were a little irritated at having to juggle the sailing schedule to spread my services around.

After a year or so, most of the ships had their own radios and operators so I didn't have to carry mine. The Coast Guard radio operators were always glad to turn the Ham shack over to me as my working hours were more flexible.

In the 60's and 70's maritime mobile stations were fairly rare and I became involved in many pile-ups. I actually enjoyed them but they did take away from my limited time and I felt guilty not devoting all my spare time to running patches for the crew.

Things have really changed. You almost never hear a ship calling for "stateside" with phone patch traffic. Most of them have e-mail or high seas telephones now — but it was great while it lasted.



# Training and experience pays off

One price I pay for an increasing volunteer schedule is the inability to keep abreast of the many activities around the community. As I was gathering materials on my way to a week-long youth camp, one of my radios stopped on a channel where a local net was in progress. I was delighted to recognize several operators who were handling traffic for a public service event.

It wasn't that Amateur Radio operators were involved, although that's always a plus, but that these were some "newbies" to ARES several years ago and now sounded like experienced and seasoned operators. I took a few minutes to listen to the event in progress and it became apparent that efforts of our local ARES training officers had been effective — procedures were followed, net operations followed established local practice, and the event was being served well by well-disciplined operators. A few minutes of listening brought a smile of satisfaction knowing the ARES operators were also offering a great example of best operating practices for others listening to the event.

Never give up on the value of training! You may feel as if you're preaching to the choir or sometimes to the cemetery, but training does sink in if your group makes it important and keeps training consistently. I always cringe when someone writes or calls and tells me "any experienced Amateur Radio operator can step up" and orchestrate an emergency event. I've yet to be shown an example of an operator with many hours of "talk time" being able to step into a public service environment and not become overwhelmed. "Talk time" does not equal experience. You may have operators with many years' experience on the radio but don't make the mistake of assuming they're experienced public service operators.

Public service experience comes from public service training and experience gained during public service events!

Bill Maclay, KD6HFY, was kind enough to send e-mail and express his thanks for the great articles he finds in ***Worldradio***. He related that he uses many of the items he reads in his involvement with Amateur Radio public service in the San Bernardino area.

He's currently active in the sheriff's search dog team. As he was passing through Salt Lake City, we had the chance to briefly chat on the phone. It was good to hear that he is also an ardent believer in "training, training, training." We both can relate stories of operators who, after their first couple of meetings, express the desire to get out and save someone. I recall a comment many years ago from a new Civil Air Patrol member who said, following a field training exercise, "enough of this stuff, when do we get to go save some lives." It's a tough topic to teach that we prepare and prepare with the hope that the real thing doesn't happen. It's great to be prepared to respond, but in my opinion its nice when lives are NOT lost.

Bill also commented that during an event he seems to get pointed to the same type of assignments. He said he would love to get out in the field on some search missions but is assigned to where he is needed most and where his talents will best benefit the effort — which is to effect the saving of lives. As I pondered his comment, it occurred to me that our assignments during an event result from the trust placed in us because of our past performance. Isn't it great to be wanted and needed, especially in a critical role such as communications!

I recall being in the hot seat and catching the assignment as a search coordinator and hoping that certain people would not show up for assignment. I would ensure that a number of trusted people were alerted and encouraged to assist. Not only would a core team of competence emerge but an effective organization would be the result. The most difficult task I would ever undertake in dealing with people was pointing them to an area of need — having them do something they were good at and in a role they could most contribute to the effort. It was often frustrating to have someone show up at the mission base and essentially demand a certain role or assignment. The people that were most welcome simply showed up, went where assigned, and did a good job. I know sometimes they desired a different assignment but knew they were needed where assigned and performed accordingly.

If there are times you don't seem to get called to participate on a regular basis, consider how you volunteer. Do you show up with the intent of doing good and participating where needed? Or do you show up and make demands and state that your participation is conditional upon assignment?

## A good antenna

I dropped a few bucks recently at the "candy store" (radio store for you new folk) to improve and repair several antennas that had been damaged over time and during many events. A friend thought it was silly to spend the money for certain brand-name items and suggested I simply opt for some cheaper items. His comment was "your antennas cost as much as the radios."

Because the value of gear seems to drop dramatically with the introduction of new models, he was probably correct in his observation of value.

The comment continues to worry me that someone will perceive that the value of an installation is found only in the cost of the radio.

Often, I delight in making a simplex contact with operators during nets in neighboring counties. My rig of choice is a one-watt Icom IC-22S. When I get a good signal report ("you're full quieting and full scale on the meter") it's fun to let the other operator know that I'm pushing a full one watt. Most often I'll get questioned about my antenna, but once in a while I'll catch a new operator and they'll ask what kind of rig I'm using and even go so far as to ask where they could get one. I often wish I could watch their expression when told it's a 20-year-old rig, is diode programmed, and only 22 channels.

When I explain the one watt is headed out of the radio on high-quality (and expensive) coax and into a well-tuned directional Yagi, they begin to catch on that signal quality is more than the radio. Once in a while I'll overhear operators comment on how well another station's audio sounds and that operator will detail how they've spent the time to obtain and install a good quality microphone. When I listen to various aviation frequencies, I can tell who has a high-quality microphone. The pilot's voice is clear, the background noise is eliminated and the

VECTOR-FINDER DIRECTION FINDERS

Hand-held phase sense antenna for VHF direction finding. Uses any FM XCVR. Audible and led read-outs. From 120 to 500 MHz with compass. Arms fold for storing. Used by Coast Guard, Commercial, Hams & Marine VHF.

VF-142 (audible only) ---------- $139.95
VF-142Q 140-300 MHz -------- $239.95
VF-142 QM 140-500 MHz ---- $289.95
(S/H extra)

RADIO ENGINEERS
7969 Engineer Rd. #102
San Diego, CA 92111
(858) 565-1319 · FAX: (858) 571-5909



To subscribe call: 1-877-472-8643

tonal quality is easy on the ears.

As you contemplate items for your in-person training, focus on ways to improve the quality of your signals. Teach the use of good antennas and how to measure VSWR and how to know which coax is good quality. As an aside, I was in a local RadioShack and overheard the salesperson tell a customer not to buy their brand of RG-58. I smiled as he referred the customer to an electronics shop and a more expensive brand of cable. He told the customer it was worth the extra price to get good quality coax. Bravo! Truth in sales!

I was able to buy a 1,000-foot roll of quality coax from a freight damaged outlet store. The coax cost me three cents a foot and will be great for some upgrades in the works and also as trading stock. If you have a freight damage store in your area it pays to stop by once in a while. I've picked up several commercial grade base antennas, heavy gauge duplex stranded wire, and even new high-capacity gel batteries for a fraction of the new cost. If you visit such an outlet, I would encourage you to carefully inspect the items.

## The Trash 80 Saga

Years ago RadioShack sold a portable computer called the TRS-80 Model 100. It came with 16K of memory, and could be upgraded to a whopping 32K (not megs). It had an internal 300 baud modem, an RS-232 serial port, and no disk drive. The LCD screen was 40 characters wide by eight lines deep and easily read. It was a wonderful machine! It became an instant hit among news and sports reporters. It was light and easy to use. Reporters could type in their stories and send them via phone to the newspaper main computer. It was a great system. One of the best things about the Model 100 was the 16-hours of use on four AA batteries. It would seemingly go for ever!

The last one of these I saw went for under $10 at a local garage sale. Why would I tell you about a Model 100 you ask. They make great portable packet stations. They're cheap, there's hardly anything in them that breaks, they operate for hours on cheap batteries, they've got a built-in communications program, and they're cheap.

Here's my suggestion for a great portable packet station. A Kantronics KPC-3 terminal node controller, a RadioShack TRS-80 Model 100 portable, a VHF j-pole antenna, a small gel cell, and an Azden PCS-4000 mobile radio. You can put all the gear in a small case and be on the air in minutes. You could substitute the Azden for an Icom IC-02AT or a Kenwood 2600 but I like the Azden because sometimes you need higher power. With patience, a station as I've described can be found for under $100.

## AA Batteries

In closing I would echo thoughts from an Internet discussion recently concerning portable radios and batteries. I've mentioned it in the past but it bears repeating that if you have radios that don't get used regularly, Murphy's Law will dictate when you go to use them in an emergency, the battery will be dead. Over the years I've collected a number of portables that cover a variety of services. There's no way I can keep them all charged. I did find a multi-bay charger on the Internet that charges six Icoms at once and that was a nifty addition to my shack.

The best solution is to purchase clam-shell packs for your radios that take AA alkaline batteries, and then keep a supply of AA batteries on hand.

I would also encourage you to quickly obtain the packs. Because newer models of radios are coming on the market so quickly, accessories for older rigs become more difficult to locate. My first rule in buying a new portable is to order the alkaline pack with the radio. I didn't do that with an old Kenwood 2500 and I've yet to locate a pack for that radio.

It is possible to find add-on items for various rigs but it takes time and patience. You simply cannot stop by the radio store on the way to an event and get a pack for your older rig! I've seen some interesting ways people have hooked up battery supplies to radios and I maintain the best method is to use the manufacturer pack if at all possible. On one event a kludged power pack actually melted down when something shorted. This is not what you want to have happen at a critical moment! In an emergency, it's important your gear is reliable. I find alkaline packs the ideal solution to being ready to respond!

One quick note, however, is a caution about some alkaline packs. I discovered that one of my Icom packs was designed for AA nicad batteries and could be charged. You guessed it, I mistakenly put it in the charger and it contained alkaline cells. The next morning, the charger was dead. It seemed that the alkaline batteries leaked all their guts into the charger and it was a real mess to clean up. The worst part was trying to obtain repair parts as the charger had not been in production for several years.

My suggestion is that you inspect your alkaline packs and actually disconnect the charging terminals inside the pack so you don't accidentally do what I did.

Until next month, be safe as you volunteer your time in service to others.

**Please send the following friends a free sample copy of *Worldradio*.**

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

Name _____
Address _____
City _____
State _____ Zip _____

**Mail to:**
***Worldradio* Send-a-Friend**
**P.O. Box 189490**
**Sacramento, CA 95818**

# QCWA nets, hamfests & stuff like that

The Quarter Century Wireless Association is justly proud of the large number of nets which the various chapters, groups of chapters, and the national organization itself serves to sponsor. By my latest count, there were 132 nets in all, more, by far, than any other Amateur Radio group outside of the American Radio Relay League.

Participation in nets is an important way for new or upgrading Amateur Radio operators to get better acquainted with their peers, learn more about this hobby through ongoing exchanges or through the acquisition of information by questions, answers, and referrals to technical specialists (of which this author is one), even if mostly in the form of rag chew conversations. ARRL Field Organization Technical Specialist appointees have at their fingertips an extensive bibliography of articles, pamphlets, and books — most of which can be accessed via the Internet and by a simple file transfer protocol, then downloaded and printed for the use of anyone who wants reliable references to their queries. Most ARRL-appointed technical specialists are regular net participants as well, and it never hurts to ask if anyone participating in a net knows of one in the field of expertise about which you have a long term or even passing interest.

Another major advantage of net participation, beyond learning more about Amateur Radio, is the opportunity that nets provide to remain or even become "anonymous." Many people in public and professional positions seek the comforting anonymity of being just plain old George, or Jim, or Bill, or whatever their first name happens to be. One need not reveal one's occupation, family tree, past successes or failures, or even one's conviction for horse stealing back in "aught twenty-five."

Thus preachers can be free of the expectations of some that their major interests must always be centered in divinity, and lawyers and physicians can be free of being asked for free professional advice — unless, of course, it is openly offered. Public figures in politics or in the visual arts need not tell those with whom they speak that they were the star of this movie or that election campaign. With a set of cans on the ears, the world of noise, ringing phones and pagers, public disclosure of who you are, and what kind of a shack or mansion surrounds you and your rig — all become insignificant. Ah, what blessed relief from the clamor of the masses! Nets are the epitome of voluntary information sharing among all the hobbies that exist. Even better, in fact, than the Internet, with its cookies and electronic trails of identifiers and tattle-tail registers. So QCWA members need to get connected and stay connected via nets. Nets are the salvation of Amateur Radio in my estimation. I can talk lots faster with my mouth — yeah, you guessed it, I have ball-bearing jaws — than I can type whatever is on my mind into a chat room or on-line meeting. I think most QCWA members realize this, and that is why so many QCWA nets proliferate in the HF and VHF spectrum. They are the ultimate in personal privacy at the same time that they are the ultimate in camaraderie and fellowship.

But if nets are all that and more, then hamfests can be the same, and more.

That's because when you get right down to it, hamfests are simply nets "out in the open"! That's right. Put a net into an environment where those who speak can also be seen, and you have a hamfest! And so that is why you will so often see a table of QCWA persons and literature at a hamfest, one that promotes both membership and participation in the goals and objectives of the Quarter Century Wireless Association — the Proud, the Many, and the Elite! We are there to enjoy an environmentally wide-open net, doing in an open location what we already do so well on the air, but not at that moment in the privacy of the Ham shack. We are issuing invitations to all who pass by to stop and share their

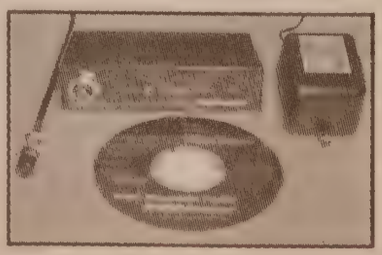
**RIGblaster** rig to sound card interface

PSK31, SSTV, RTTY, Voice Keyer & other modes!

**A RIGblaster and a computer .....**

**The powerful replacement for old expensive adapters or TNC's.**

- **Ready to go**....with mic. cable, power supply and 3rd party software CD.
- **Compatible with all rigs**....3 versions; 8pin mic, 4pin mic. and RJ45.
- **Supports all sound card ham software**....discounts on several licenses.
- **RF and ground loop proof**....audio transformer, relays and optical isolation.
- **Audio matched**....level adjustment and channel selector switch.
- **Fully automatic operation**....serial PTT and automatic audio switching.
- **Mode selector switch**....selects serial control or VOX operation.
- **Normal station operation**....leave it connected; no manual switching!
- **Mic override and mic interrupt**....convenient for voice/digital operating.
- **Quality construction**....made in USA to IPC610, with aluminum case, mini toggle switches and fiberglass pcb.



VISA

**Only $89.95** plus shipping

For complete info and ordering:

http://www.westmountainradio.com

**West Mountain Radio** de N1ZZ and K1UHF

18 Sheehan Avenue, Norwalk, CT 06854 (203) 853 8080



To subscribe call: 1-877-472-8643

expertise, to chat about the good old days, to ask questions, to provide information and to exchange their enthusiasm for their favorite operating passion.

There's an old story about a young, evangelical seminary graduate serving his first parish. He realized that if the small, rural congregation that he was serving was ever to grow, it would take some zealous action on his part for things to improve (not unlike making our individual QCWA Chapters grow, for that matter). So, taking his Bible in hand, he headed out into the highways and byways in search of possible members or new converts.

He came across a farmer out working in his field, and decided to start right there (it is always a good idea to start where you are, in these matters of membership recruitment). So the young preacher asked the farmer, "Are you laboring in the vineyard of the Lord, my good man?"

Not even looking up at the evangelist, but continuing his work at hand, the farmer replied, "Naw....these are not grape vines. These are soybeans."

"You don't understand," continued the preacher. "What I am asking is this: are you a Christian?"

With about the same amount of interest as with his previous answer the farmer replied, "Nope. My name is Jones. You must be looking for Jim Christian. He lives on a farm about a mile south of here."

The young preacher was not to be deterred by this answer, however, so he tried yet again: "Are you lost in the Lord, sir?"

"Nope," replied the farmer once again. "I'm not lost at all, least of all to myself. I've lived on this farm for nigh unto 25 years now, and I know every square foot of it like the back of my hand."

Totally frustrated by now, the young evangelist tried one more time: "Well then sir, are you prepared for the Resurrection?"

This question finally caught the farmer's attention, so he asked the preacher, "Well now, just when is this here Resurrection gonna be?"

Happy that his questions had finally hit pay dirt, the young man replied, "Well sir, it could be yet today, or tomorrow, or even the next day."

Taking a large handkerchief from his back pocket to wipe his face, the farmer responded in a sotto voice, "Well, now, please don't mention that there Resurrection to my wife. You see, she doesn't get out very much, and if she were to hear about it, she'd want to attend all three days!"

Which brings me to an important point about chapter membership recruitment: Begin by inviting someone to attend a local hamfest with you (one, two, or three days!). If it's a new licensee, then he or she will get a new understanding of what amateurs are all about. If it is someone, perhaps a young neighbor (with or without a parent to come along), they may get all excited about how inexpensively someone can get a start in Amateur Radio. Hamfests, by whatever name they are called, are fabulous environments in which to teach newcomers about Amateur Radio, and an equally great environment to talk about "the good old days" when what is on display in the flea-market can be examined and reflected upon. The easiest way to recruit new club members is to involve them in something you share together — an interest, a memory, an experience out of which a friendship can be built. I come across more and more of these events, even those which charge admission, which are free to those below the age of 12 or 14 years. And I believe that even though there seems to be a decline in the number of hamfests in some venues, QCWA members still find them to be wonderful places to build relationships with fellow amateurs — beginners, or old-timers, or anyone else in-between.

Nets and Hamfests, the life-blood of Amateur Radio, are among the most important passions of the QCWA, along with all that other stuff that makes me proud to be a part of the very best hobby in the world.

See you around. On the net, or at a hamfest. 73 + 25, Alan, KJ9N

## Inside Amateur Radio

*The following story has been excerpted from* Inside amateur Radio, *by the late Lenore Jensen, W6NAZ. The book can be purchased from Worldradio Books, P.O. Box 189490, Sacramento, CA 95818. Price is $9.00 plus $2.00 shipping and handling. CA residents please add 70¢ sales tax.*

# Swapped favors

The Ironing Board Network meets regularly Tuesday mornings, as it has for years, so the gals can chat — supposedly ironing, but more often just kindling the fires of long-term friendships.

When they go on trips, they try to 'check in' to the Net control station. Elsa Wheeler, W6JZA, wanted to do this as she and her husband, Hoddy, were driving around Clear Lake, California.

"My problem was that the little rig in the car couldn't get to the frequency spot on the dial where the girls meet. But I did make contact with a fellow named Noel who told me he was in the high desert at Twenty-Nine Palms, home on leave from his position as a ship's radio operator.

"I asked Noel if he would drop in on the Ironing Board Net and tell them where I was. And, oh yes, I suggested Noel say hello to Martha, W6QYL, who lived near him in the high desert in Yucca Valley.

"A year later when I was participating in the net one day, Martha came on the air and said she had something to tell me. She announced to me (and to scores of other girls listening) that she and Noel were engaged to be married and thanks for the introduction!

"I was invited to the garden wedding and never saw a happier couple. Since, they have enjoyed a most interesting life, including a two-year stint in Lebanon when Noel was a government communications engineer. Now they both are teachers — living happily ever after."

**HAM LOG-BOOK PROGRAM**
for Win 95, 98, and NT. Features multiple log-books, Search, Sort, Print QSLs, Labels. Registered CD $21, or download only $10.

**QSL CARD DESIGN PROGRAM**
for Win 95, 98, and NT. Design and Print custom QSL Cards. Save up to 20 styles. Registered CD $21, or download only $10.

Save – both programs on CD $31. VISA/MC
*For details visit web site www.n3jl.com*
Communication Products, Ltd. • P.O. Box 2980
Montgomery Village, MD 20886-2980

# MARS honors veterans

MARS, as an integrated whole which includes all the services, has had a most active summer season. The "season" opened with the massive fires in New Mexico, Arizona, other areas of the Southwest, and some in Florida. These fires as well as storms, transportation disruptions, and other events about which information was needed by relief organizations via the Army's Directorate of Military Support (DOMS) were among the topics contained in Essential Elements of Information (EEI) reports from MARS members in all the services.

Participation in emergency communications exercises with the primary agency customers of the MARS organizations were also maintained at a very high level.

This summer has also been a banner time for MARS interaction with the public both in the Continental United States (CONUS) as well as overseas (OCONUS).

•

Dayton! To the thousands of members of MARS (Military Affiliate Radio System) and the millions of Amateur Radio operators worldwide, that name denotes far more than a small city in the state of Ohio. Dayton means, immediately, the Dayton Hamvention. If anyone says, at any time of the year, that he or she is going to Dayton, envy strikes the hearts of those radio people who cannot go.

All three MARS services were well represented at the joint MARS booth. Working the MARS booth were chiefs of Army MARS, Robert Sutton, and Air Force MARS, Ray Collins, and the deputy chief of Navy/MarineCorps MARS, Lt. (jg) William Troutman, assisted by several MARS volunteer members representing all three services.

Army MARS attracted 91 members who signed in from 30 states and Puerto Rico. We also attracted 15 recruits, including one potential club station. Both of these figures represent new highs for Army MARS. Army MARS is still a viable communications agency able to attract fine people. The other service MARS programs also attracted a good turnout and a number of new recruits.

It was my personal pleasure to meet many MARS members who not only wished me well but who commented favorably on my work. Meeting friends from Florida was very special for me.

The joint MARS forum featured a presentation by Lt. Col. Emmanuel Hampton, chief, Exercise and Training Division, G3, Army Signal Command, Fort Huachuca, Ariz., as well as briefings by each MARS chief.

The title and theme of Lt. Col. Hampton's remarks was, "MARS in the New Era" as part of the Army Signal Command.

He described MARS as having a viable mission with excellent capacities for support and able to give great added value to the Army Signal Command worldwide. Future expansion of the MARS roles would ensure that MARS could support the warfighter wherever he might be.

•

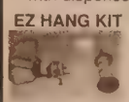
Preceding Dayton, Amateur Radio operators were encouraged to join in the Armed Forces Day crossband exercise during which amateur operators on amateur frequencies could crossband communicate with military operators on military frequencies. More than 2,000 contacts were made despite abysmal band conditions.

•

In addition to CONUS celebrations honoring our military personnel and cooperating with the Amateur Radio community, Army MARS Europe also held a very special conference and workshop. This event was the first of its kind and included MARS operators and guests from all over Europe.

Special guests included Herr Norbert Gabriel, representing the German agency for telecommunications and newspapers (similar to our FCC plus), Herr Helmut Auch/DEK25, head of the German Red Cross HF Stations program, and Lt. Col. Ted Connally of the Armed Forces Communications Electronics Association and vice president of KMC AFCEA Chapter in Europe. In terms of international relations, this MARS-sponsored conference was a most valuable event.

It was the Army MARS Gateway Station operator in Germany who first suggested the "To Any Servicemember" MARSgram program which was launched formally during the Operation Holidays campaign in 1998. This pro-

EZ HANG KIT™ PATENT PENDING
Will shoot a line over a 100-foot tree with ease. Hang your next wire antenna the EZ HANG way. Better than a bow & arrow. Put that next Dipole where you want it in half the time with EZ HANG! And, the EZ Winder, our intermediate line with dispenser — 500' of 155 lb. test. Stakeable handle, crank, twist-off top.
EZ HANG KIT

MAKE YOUR NEXT ANTENNA HANGING EXPERIENCE A PLEASANT ONE!
EZ HANG

1 EZ HANG
1 Pack of 5 wgts.
1 EZ Winder
Total: $69.80
Includes Shipping
Saves you $9.95 on this kit pkg
MD res. add 5% sales tax.
WWW.EZHANG.COM
E-mail us at:
ezhang@ezhang.com
(540) 286-0176
$49.95 EZ HANG + $5.95 Shipping
VISA MasterCard
Send Ck/M.O. to: EZ HANG Inc.
8645 Tower Dr. • Laurel, MD 20723

WORLD CLASS
VHF • UHF • SHF Equipment
SSB ELECTRONIC DB6NT - Kuhne
M2 ANTENNAS
PROCOM TELETEC EME Winradio
Low Noise GaAsFET Preamplifiers - Relays
Linear Amplifiers - Transverter Systems
Antennas - Coaxial Cable - Antenna Switches
Parabolic Dishes - Azimuth/Elevation Rotators
Transverter Kits 1268MHz - 10.368GHz
SSB ELECTRONIC USA
www.ssbusa.com
124 Cherrywood Dr. • Mountaintop, PA 18707
(570) 868-5643 • MC/VISA accepted



To subscribe call: 1-877-472-8643

gram is still encouraged and is appreciated by thousands of soldiers who have no close family or other loved ones.

•

The combined MARS chiefs and the MARS display were very prominent at the ARRL Southwestern Conference at Arlington, TX. Again, the mission of informing the public and the Amateur community about the MARS programs and current activities was most successful.

•

Since this has become a quarterly column, I need to observe so many dedications in large chunks. I am looking at the fact that this country and its MARS members and fellow citizens have celebrated Memorial Day, Flag Day, Independence Day, and in November, we will celebrate Veteran's Day. In all of these observances, we, in MARS, feel a closeness to those we serve...the fine men and women who now serve and who have served in the Armed Forces of the United States.

As part of the the newly expanded Armed Forces Week, the Armed Forces Day crossband communications observance and exercise, the special message sanctioned by the Secretary of Defense is always a special part of our salute. It is fitting that that message be included here as an overall expression of support for them and for the volunteers who do so much to support them.

This message was authorized by the Secretary of Defense but was written by Henry H. Shelton, Chairman of the Joint Chiefs of Staff.

"Fifty years ago, President Truman issued a proclamation establishing Armed Forces Day to celebrate the unification of all the military forces under a single department and to pay tribute to the servants and protectors of our great Nation.

"Today, that tradition continues by honoring the 2.7 million men and women in uniform. Scattered across the globe, you enforce no-fly zones in Iraq, patrol the demilitarized zone in Korea, provide a safe and secure environment in the Balkans, and continue to train to ensure responsiveness should the Nation call.

"Perhaps the most important lesson we have learned over the last 50 years is that the backbone and strength of the Armed Forces is our people. Although our equipment is top-notch and uses cutting-edge technology, our success remains tied to the men and women who serve loyally, who serve ably, and who serve proudly.

"President Roosevelt once said a requirement for a good citizen is that he should be willing and able to pull his own weight. To all the men and women who answered the call to public service, thank you for pulling your own weight and helping make this country the envy of the world. You are truly America's Best, and I salute each of you for your dedication, loyalty, and hard work.

"May God bless you and may God continue to bless America.

"Sincerely,

'HENRY H. SHELTON

'Chairman of the Joint Chiefs of Staff"

•

As with all the men and women of the MARS services who have answered the call, MARS remains Proud, Professional, and Ready.


# BATTERIES

REPLACEMENT BATTERIES
(ALL NEW – MADE IN USA)

**ICOM**

| | | | |
|---|---|---|---|
| 7S | 13.2v | 1400 mAh | $53.00 |
| 8S | 9.6v | 1400 mAh | $51.00 |
| BP7 | 13.2v | 600 mAh | $53.00 |
| BP8 | 8.4v | 1400 mAh | $50.00 |

**SA/SAT**

| | | | |
|---|---|---|---|
| BP82, BP83 | | | |
| BP84 | 7.2v | 1200 mAh 3" | $39.00 |
| BP85B | 12v | 600 mAh 3" | $69.00 |

**YAESU**

| | | | |
|---|---|---|---|
| FNB-2 | 10.8v | 600 mAh | |
| FNB-4 | 12V | 750 mAh | $39.00 |
| FNB-4A | 12v | 1000 mAh | $55.00 |
| FNB-17 | 7.2v | 600 mAh | $30.00 |
| FNB-10S | 7.2v | 1200 mAh | $39.00 |
| FNB-12S | 12v | 600 mAh | $40.00 |
| FNB-25 | 7.2v | 600 mAh | $35.00 |
| FNB-26 | 7.2v | 1200 mAh | $44.00 |
| FNB-26S | 7.2v | 1500 mAh | $49.00 |
| FNB-27S | 12v | 800 mAh | $49 00 |

**KENWOOD**

| | | | | |
|---|---|---|---|---|
| PB1 | 12v | @ | 1100 mah | $59.00 |
| KNB-3 | 7.2v | @ | 1200 mah | $38.00 |
| KNB-4 | 7.2v | @ | 2200 mah | $59.00 |
| PB6 | 7.2v | @ | 750 mah | $35.00 |
| PB7 | 7.2v | @ | 1500 mah | $49.00 |
| PB8 | 12v | @ | 800 mah | $49.00 |
| PB-13 | 7.2v | @ | 750 mah | $37.00 |
| PB-14 | 12v | @ | 800 mah | $49.00 |
| PB-18 | 7.2v | @ | 1500 mah | $47.00 |

**ALINCO**

| | | | | |
|---|---|---|---|---|
| EBP-10N | 7.2V | @ | 700 mAh | $35.00 |
| EBP-12N | 12v | @ | 700 mAh | $47.00 |
| DJ-F1T | | | | |
| EBP-16N | 7.2v | @ | 750 mAh | $37.00 |
| EDP-18N | 12v | @ | 600 mAh | $47.00 |
| DJ-180 DJ-580 | | | | |
| EBP-20N | 7.2v | @ | 800 mAh | $34.00 |
| EBP-20NX | 7.2v | @ | 1500 mAh | $44.00 |
| EBP-22N | 12v | @ | 800 mAh | $49.00 |

**MasterChargers**
Master Charger I DELTA V, RAPID CHARGER
ALL VOLTAGES 4.8v -13.2v 1/2-2 HOURS
MASTERCHARGER IIa TAPER CHARGER
ALL VOLTAGES 4.8v-13.2v 8 Hours+

**DUAL CHARGERS**
• MasterCharger I+I • MasterCharger I+IIa • MasterCharger IIa+IIa
AUTOMATICALLY CHARGES TWO BATTERIES AT SAME TIME

ALL MasterChargers (SINGLE & DUAL) FEATURE:
• INTERCHANGEABLE CUPS • FULLY AUTOMATIC OPERATION
• BUILT IN OVERCHARGING PROTECTION
• MORE THAN 50 CUPS AVAILABLE
• USER FRIENDLY • OPTIONAL DC CHARGER

**SALE**
All 7.2 Volt at 1500 MAH BATTERY PACKS
$39.00

**CAMCORDER**

| | | |
|---|---|---|
| Panasonic PB 80/88 Orig. Pan. | | $39 00 |
| Sony NP77H | 2400 mah | $39 00 |
| Sony NP55 | 1000 mah | $29.00 |
| Sony NP22 | 500 mah | $29.00 |
| Canon 8mm | 2000 mah | $36.00 |
| Panasonic Palm | 2400 mah | $39 00 |
| JVC GR Type C | 1500 mah | $36.00 |
| Sharp BT 21/22 | 2000 mah | $45.00 |
| RCA/Hitachi 8mm | 2400 mah | $39.00 |

ALL BRANDS AVAILABLE

**NEW**

**KENWOOD TH22AT /79**

| | | | |
|---|---|---|---|
| PB32, | 6v | @ | 600mAh |
| PB33, | 6V | @ | 1200mAh |
| PB34, | 9.6V | @ | 600mAh |

**YAESU FT-11R /51R**

| | | | |
|---|---|---|---|
| FNB31, | 4.8V | @ | 600mAh |
| FNB33, | 4.8v | @ | 1200mAh |
| FNB33(s), | 4.8v | @ | 1500mAh |
| FNB35SS, | 7.2v | @ | 1500mAh |
| FNB38, | 9.6v | @ | 600mAh |

**ICOM-W21AT / 2GX**

| | | | |
|---|---|---|---|
| BP-157, | 7.2v | @ | 900mAh |
| BP-157(s), | 7.2v | @ | 1500mAh |
| BP-132, | 12v | @ | 850mAh |

"available with and without microphone"

**MOTOROLA**

| | | | |
|---|---|---|---|
| GP-300, | 7.5V | @ | 1200 MAH |

ALL BATTERY PACKS – GUARANTEED TO HAVE THE ADVERTISED CAPACITY

SEND FOR FREE CATALOG

DEALER INQUIRIES WELCOME

**BATTERY-TECH, INC.**
800 S. Broadway • Hicksville, NY 11801
(800) 442-4275 • FAX: (516) 496-9523 • N.Y.S. (516) 496-9520

DISCOVER MasterCard VISA

# CW contest results

In previous columns, I've given tips on operating mobile on the County Hunter nets (14.336 and 14.0565 Mhz). One of my tips was deciding when is the best time to plan a trip. Obviously if it's in conjunction with a family or business trip, flexibility of travel plans might not be an option. If you have flexibility, I cautioned against planning a mobile trip to 'run' counties on a major contest weekend. Major DX and stateside contests jam the bands and operating mobile on the nets can be very difficult if not impossible. On the other hand, operating during a state QSO party might just be the time to operate. An even better exception to the 'no contest rule' is the Mobile Amateur Radio Awards Club's county hunter contests. The CW and SSB contests are held on two separate weekends, similar to the ARRL Sweepstakes. The CW contest is held the first weekend in May each year. It was the first contest I entered when I became a brand new Ham in 1978.

## 2000 MARAC CW Contest Results

Kudos to Norm Beavers, W3DYA, for publishing the 2000 MARAC County Hunters CW Contest results. It was the 34th year of the contest and by all means it was a successful contest. There was particular attention paid this year to motivating mobile operators to give out counties during the contest...and it paid off.

Reportedly there were over 20 mobile operators active in the contest; however, only 12 sent in logs. Mobile operators who sent in logs include Jeff Bechner, W9MSE (MI, IN, IL, WI); Norm, W3DYA (TX); Ed Palagyi, KN4Y (SC, GA); Wallace Offutt, W1NN (PA, NJ, NY, CT, MD, DE); Andy Rugg, VE2EM (NY); Dan Broadbooks, NGØT (KS, CO); Dwight Orten, KM4FO (IN, KY, IL, TN); Harold Burt, W9HB (IL); Bill Inkrote, K2NJ (NJ); Stan Reas, K4UK (GA, TV, VA); Rickey Hughes, NS7B (UT); and Jim Labo, KØZT (CO). W9MSE and KN4Y won MARAC plaques for being the top two highest scoring mobile operators. Although W3DYA finished second in scoring, as the contest chairman, he disqualified himself from winning an award. Others received certificates for having the highest mobile score in individual states.

The 12 mobiles above operated from 311 counties (10% of the U.S. counties) during the contest. Amazingly, W9MSE accounted for 74 of these counties on his own. KN4Y was closest to W9MSE operating from 50 counties. W9MSE, W3DYA and KN4Y each made over 1,000 contacts, with their scores being good enough to place them in the Top 10 highest mobile scores for the 34 year history of the contest.

W3DYA received 33 fixed station logs from the U.S. and three logs from DX stations. The top three fixed stations were Van Hodgden, WC5D; Paul Antos, WB2ABD; and Bill Zaner, WB6IYS. Van and Paul received plaques for the two highest fixed station scores and Bill received a certificate for the high score from CA. The top DX stations were Gedas Luckinskas, LY3BA; Leo, DL3DD; and Yoshi Katada, JA9CWJ. There was also an interesting comment in the soapbox from WC5D...he's operated in all but one of the 34 previous MARAC CW contests with a string of 24 in a row.

## MARAC National Convention

This year, MARAC conducted its National Convention in Midland, Michigan. The convention was held 5-8 July at the Holiday Inn in Midland. Roughly 200 county hunters and family attended from 30 states and three DX countries.

Attendance at the planned events included 115 attendees for the picnic in the park on Wednesday, 48 took the bus trip to Mackinac Island on Thursday, 102 for the Frankenmuth luncheon on Friday, 50 attended the Pastie special luncheon on Saturday and 168 attended the awards banquet Saturday evening.

Speaking of the awards banquet, MARAC presents annual awards to county hunters that represent the best of the best. Each award is issued to a CW operator and a SSB operator to make sure that there's a fair distribution of awards for the two modes. For the SSB awards, the County Hunter of the Year was Bill Inkrote, K2NJ; the Net Control of the Year was Jim Grandinetti, KZ2P; and the Mobile Operator of the Year was Kenny Carpenter, KC4UG. For the CW awards, the County Hunter of the Year was Eldon Austin, KA3MMM; the Net Control of the Year was Arden Fonda, AAØIP; and the Mobile Operator of the Year was Bob Voss, N4CD.

MARAC also presented special awards to a few county hunters. Gene Olig, KD9ZP, and "Dom" Domina, K4DOM, received the President's Award for their work on the MARAC Awards program and the MARAC web site. Roger Purdy, W2NWL; K4DOM; and Vern Olson, WAØRJJ; received the Awards Custodian Award for their help in making the MARAC awards program successful.

Randy Davis, N8ELQ, received a MARAC Catetory three Humanitarian award for setting up an antenna for fellow county hunter Mary Carter, NV4Z; for setting up internet access for fellow county hunter Larry Hickman, KA9ZRW; and for driving fellow county hunter Ed Eastwold, WAØSBR, through counties to help him operate

Sam
Screwdriver Antenna Memory

The Screwdriver Antenna Memory (SAM) adds a computer controlled memory function to your screwdriver antenna system. The SAM will replace your existing up/down manual tuning switch with a microprocessor based controller.

"SAM works great!"
- Jack McKenzie/ N5MFG

Order ONLINE!
sales @ ko6yd.com

* Visit our Website for more information
www.ko6yd.com

Automate Tuning of your Screwdriver Antenna
Keep Your Eyes on the Road ™
- Eliminate Antenna Band Markings
- Memorize 16 locations & return on command
- Jog mode to "fine tune" the antenna
- VFO style knob for easy operation
- Mount antenna out of sight (Great for RVers)
- Built in IC706 Tune Controller keys radio when tuning
- Works with your existing antenna *
- Size: 4W X 2H X 4D
- Simple 4 Wire Connection to Antenna

Assembled & Tested with Case 149.95
Shipping & Handling 6.00

We Accept: Visa and M/C

KO6YD Designs
PO Box 1090 Elverta, CA 95626-1090
Voice Mail:888-83-KO6YD • info @ ko6yd.com



To subscribe call: 1-877-472-8643

from all 3,076 counties. Lastly Roger, W2NWL, received a MARAC Category three award in appreciation for his work as the outgoing Awards Custodian.

Next year the convention will be held close to me in Hampton Roads, Virginia (VA-2001 maybe?). It will only be the second MARAC convention I've attended in 22 years of county hunting. Needless to say, I'm looking forward to attending and meeting some more of these folks I've been contacting for so many years.

## MARAC information packet

If all this county hunting lingo is new to you, perhaps you are ready to gather additional information about county hunting and MARAC. If so, an information packet is available by sending an SASE to: Norm Ellison, W2LSH, 440 Birch Bark Drive, Brick, NJ 08723-4953. You can also get information on-line from http://www.countyhunter.com/marac_information_package.htm

## New MN county?

Looks like east central Minnesota might get a new county in the not too distant future. Local news reports indicate that residents of Pine County Minnesota are close to having enough signatures to place a request for a new county on the ballot this fall. The county would split Pine County in two and the new county would be called Pioneer County, Minnesota. Pioneer County would be the southern part of what is now Pine. The county seat would be Hinckley, Minnesota. More news as it breaks.

## Southeast mini-convention

One of the biggest county hunter gatherings each year is the SouthEast mini-convention. This event usually draws a big crowd and rivals MARAC's national convention as the most attended county hunter get together. The 2000 event is scheduled for 19, 20 and 21 October at the Holiday Inn in Murfreesboro, TN. Registration is $12.00 OM/YL or $9.00 for single and the Saturday night dinner is $18.50 per person. Additional information is available on the internet at http://www.countyhunter.com/2000_southeast_mini_convention.htm or from Bill Bell (KM4W), 99 Smoke Rise Circle, Manchester, TN 37355-5093. Bill's telephone number is 931/728-7379.

## USA-CA

In my May column, I wondered who would be the 1,000th recipient of *CQ* magazine's USA Counties Award (USA-CA). It took almost 35 years for 1,000 county hunters to contact all 3,076 counties. Kinda fitting #1,000 came in the new millennium year 2000, don't you think (1,000 in 2000)? *CQ* magazine has issued four quad digit USA-CA awards since my last column:

| | | |
|---|---|---|
| 1,000 | N9CAR | 5/19/2000 |
| 1,001 | K7TED | 5/22/2000 |
| 1,002 | KB6HW | 6/10/2000 |
| 1,003 | AA4QE | 6/24/2000 |

Congratulations to all the new recipients of USA-CA.

## That's a wrap!

Remember to listen for county hunter activity on the nets on 14.336 and 14.0565 MHz. Until November, happy hunting! 73 Ace N3 aha!


www.amateurcommunications.com

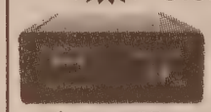
Am-Com Inc.

ClearSpeech™ Speaker
Digital Noise-Canceling Speaker for Two-Way Communications

This easy-to-use DSP speaker activates automatically and filters 95% background noise, static and other interference.
- Improves clarity & intelligibility
- Continuous, adaptive removal of background noise
- Listen with less fatigue & greater concentration
- Improves signal to noise ratio

$149.95
(Reg. Price $179.00)

NEW
Am-Com Inc. ClearSpeech™ Base



$149.95
3"X1"X5.5"

You asked for it. The unique digital noise canceling technology of the popular ClearSpeech™ Speaker, but without the internal speaker. Removes up to 95% of noise from received audio.
Use in-line with your favorite base station or mobile speaker.

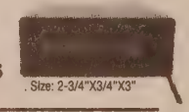
NEW
NOISEBUSTER™ EXTREME!™ HEADPHONE SYSTEM

Regularly $49
Am-Com Inc. Price
$44.95

Electronically cancel low-to-mid frequency room noises. For two-way radio or personal stereo systems. Active noise cancellation. 2-1500 HZ, better than 15 bd between 15-300 HZ.

Am-Com Inc. ATAS-100 Controller
Use the Yaesu ATAS-100 with any transceiver

NEW
- Operates with any Transceiver
- Small & Compact, Mounts Anywhere
- Operates on 12VDC
- Low Cost
- Easy to Install



$69.95
Size: 2-3/4"X3/4"X3"

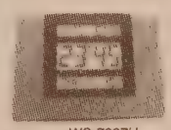
Am-Com Inc. is a Full Line Dealer for All Popular Amateur Manufacturers, including:

ADI, ALINCO, DIAMOND ANTENNA, COMET, AMERITRON, hy-gain, GAP, ICOM, MFJ, MIRAGE COMMUNICATIONS EQUIPMENT, YAESU The High Technology Leader, LA CROSSE TECHNOLOGY

WT2100

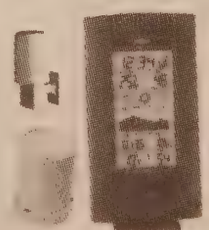
$49.95

WWVB Radio Controlled Time & Date
- Ideal for expeditions & field operation
- 12/24 Hour Format
- Indoor Temp (C & F)
- 2 Alarms w/Snooze
- 3-3/4"X2"X2"



WS-7097U
$99.95

World Time Center
- A must for well equipped ham shacks
- WWVB controlled accuracy
- 12/24 Hr, 2 Time Zones
- Indoor/Outdoor temp & RH with remote wireless sensor
- Battery Power
- 11.81"X1.22"X8.8"



WS7058U
$265.00

Wireless Weather Station
- Indoor temp/humidity & wireless outdoor temp/humidity
- Miximum of 3 wireless outdoor temp/ humidity xmtrs
- Min/Max for temps with date & time of recording
- High quality barometer
- 48-hour pressure history bar chart
- Weather forecast icon
- Wireless rain gauge
- Rainfall amount for last hour & 24 hours+ total
- Rainfall history bar chart
- Time & date
- Includes TC4U temp/humidity sensor & TX5U rainfall sensor
- Dimensions (LxWxH): 4 5/8" x 1 1/8" x 8 7/8"

Price, specifications and availability subject to change without notice.
All Prices + Shipping & Handling
Email: amcom@digisys.net
Phone Orders: 1-888-803-5823
Mail Orders To: Am-Com Inc., 100 Bierney Creek Rd, Suite C, Lakeside, MT 59922

# The 'Upper Echelon'

Many traffic handlers take the time to check-in to a Section Traffic Net on a regular basis. Some participate in any one of our fine independent nets, such as "Hit and Bounce" or "ARTS." However, how many traffic handlers actually take advantage of the opportunity to improve their skills through participation in NTS upper echelon nets?

Without nets at the Region, Area, and TCC level, our traffic supply would quickly dry up. Without traffic, our nets would lose a sense of purpose and wither. As a result, members would drift away, and emergency organizations would lose a valuable source of convenient communications training.

NTS exists primarily as an emergency communications and training resource. The routine radiograms transmitted through these networks make this training opportunity possible. When Section Nets fail to recruit individuals for liaison to the Region and Area levels, the system breaks down. In some Regions, only two or three operators support liaison to the Area Net, and some of these folks aren't getting any younger.

For example, here in Michigan, we have five SSB traffic nets. Three of these nets fall under the "Evening" (Cycle 4), yet none utilize their own members to maintain liaison with the evening Region Net! Only when a CW net member volunteers does liaison actually take place. Therefore, outgoing Region Traffic often sits until the following day before it even enters the system. Is that good customer service?

## What about automation?

Some will undoubtedly argue that NTS should automate, and take advantage of the many digital modes available to Amateur Radio. Actually, this is taking place, although slowly. While automation offers great possibilities, we shouldn't overlook the valuable training opportunities offered by participation in a "traditional" Region or Area Net. These nets challenge an operator to hone his skills in a way far superior to chasing DX, contesting, or simply checking-in to a Section Net. Perhaps one of the reasons NTS members have been slow to adopt automated techniques is simply the fact that it's not fun or challenging. For some, watching a computer process communications traffic is almost as exciting as watching a refrigerator operate.

Maintaining an effective and vibrant NTS system at the Region, Area, and TCC levels will insure that our best operators will have new and challenging opportunities designed to maintain their interest in NTS and public service communications.

## What are these nets like?

There is no doubt that Area Nets, particularly during the evening "CW" cycle, are very business-like. As a matter of fact, if one wants to hear a model of efficiency which should be the goal of all amateur (and many professional) networks, they should tune-in the Eastern Area Net on 3670 kHz at 8:30 p.m. Eastern Time. If all amateur nets ran with this type of efficiency, public service agencies would be beating a path to our door (Those that think CW is obsolete should purchase a code reader and spend a couple of weeks observing the methods used on EAN during the evening cycle).

Ironically, this impressive efficiency may be the reason many don't take advantage of the opportunity to participate in an upper echelon net. Many operators are afraid they lack the "skill" necessary to do so. However, we mustn't forget that unlike the armed forces or our jobs, we do this because it's fun, not because it's required. It's permissible to make mistakes during the learning process. Many of the finest operators you'll hear on the air, started with uncertainty, confusion, and on-air mistakes. They simply learned from them and moved on.

## How do I get started?

The easiest place to start is simply liaison to the Region Net. These nets typically run at a pace similar to a Section Net. One might even claim that they are less complicated than Section Nets. They typically have fewer check-ins, and each stations' responsibilities are identified in advance. Therefore, it is easy to anticipate much of the net business. One can begin by simply volunteering to take traffic from his/her Section Net to the Region Net.

Once one is comfortable at the Region level, the next step is to volunteer for liaison duty to the Area Net. Area Nets are quite business like, and tend to operate at a faster pace. However, this is also part of the fun. The author will never forget his first EAN session. What an accomplishment! Later, when an EAN Net Certificate arrived in the mail, it was much like successfully passing the General Class exam or receiving the 32nd degree, something of which to be proud!

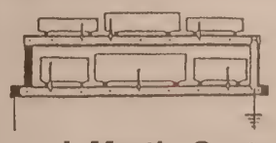
Was I nervous during that first "QNI?" You bet. Was it worth it? You bet. Successful participation at the Region and Area levels offers a challenge and level of satisfaction unattainable in contesting or "rag-chewing." It also provides a wonderful opportunity to listen to the best operators in North American ply their trade.

If you think you have an interest in upper echelon nets, act on it now. Don't miss the fun and challenge of operating with the best. You won't regret your decision. It may even change your entire view of Amateur Radio. Check with your Net Manager of STM for the details.

## Are we forgetting the basics?

In advance of the various Y2K operations this past year, I had the opportunity to meet with numerous ARES and RACES groups to provide training on communications and NTS procedures. While many such organizations were

FACTORY AUTHORIZED REPAIR OF
ICOM YAESU KENWOOD ALINCO
Factory trained technicians using state of the art test gear to insure the highest quality of service for your radio.
High-Performance Modifications
1-888-767-9997
http://www.kk7tv.com
Your One STOP Service Center
KK7TV Communications
2350 W Mission Lane #7, Phoenix, AZ 85021
Fax: 602-371-0522

Is Your Shack Grounded?

"Ground It"
J. Martin Systems
35 Hilltop Ave. Dept W, Stamford, CT USA 06907
(24-hr. voice mail) or FAX: (203) 461-8768
http://www.jmsystem.com



To subscribe call: 1-877-472-8643

very well prepared, a few showed a stunning lack of knowledge of basic communications procedures and emergency communications preparedness.

It seems logical that the first responsibility of an Emergency Coordinator or Net Manager should be to insure that the majority of "rank and file" members are familiar with the basics of emergency preparedness and communications techniques. The basics might include:

- Thorough familiarity with the correct phonetic alphabet (ITU/ICAO)
- Ability to utilize proper prowords/prosigns
- Ability to utilize proper procedures for transmitting difficult names, words, groups
- Basic familiarity with standard message format(s) and net discipline
- A general understanding of roles and responsibilities
- Ability to deploy to a shelter, command post, or similar facility, with something more than an HT and a single battery-pack!

Perhaps one of the most difficult problems facing an EC or NM is providing useful activities that promote training and preparedness without intimidation. Routine business meetings are often dull, so here are a few ideas for Emergency Coordinators or Net Managers looking for fun and easy ways to improve the preparedness of their members:

## The deployment drill:

Assign operators in teams of two to proceed to an unfamiliar location (arranged for in advance) to set up a portable station. The location should provide challenges similar to those typical of a command post, EOC, shelter, or similar facility. The drill is completed at which time the teams are able to successfully contact the Net Control and originate one formal "test" message (provided in advance) each. Several teams can be deployed to different locations with instructions to start setting-up the equipment at a given time. The first team to get "on-air" and correctly transmit the message "wins" a door prize or certificate. Such exercises can be conducted on FM, packet, HF, or a variety of modes.

## The vehicle drill:

The purpose of this drill is to simulate a temporary installation in a vehicle not already equipped with Amateur Radio apparatus. In time of emergency, such a vehicle might be an ambulance, Red Cross ERV, police or fire vehicle or perhaps a National Guard "deuce and a half." For the purpose of the exercise, it might be a members' sedan. The operator must install a radio in the vehicle utilizing such items as a mag-mount antenna and cigarette lighter cord. The origination of one formal "test" message successfully completes the drill.

## Jump kit night:

ARES members are asked to bring their "jump kits" to a regular business meeting. Each person describes the contents and capabilities of their kit. The membership then votes for the best jump kit. The winner gets a free meal after the meeting. This exercise will provide the membership with a whole range of ideas for constructing an effective "go-kit."

## Specialized drills:

Consider a contest in which the ARES group meets at a local park or picnic pavilion. Members set up portable HF equipment, check-in to a traffic net, and originate one test message to a Regional or State EOC. When the exercise is complete, everyone enjoys a barbeque or picnic and a certificate or award is presented to the individual/team with the most effective portable station. Similar exercise could be conducted using packet radio, ATV, APRS, and so forth.

## NTS award:

Consider an award for NTS traffic handling: Members submit copies of all the traffic they've handled in the past month (or quarter). An award is then presented to the individual with the highest traffic total.

## NTS drills:

One can utilize a typically mundane weekly ARES/RACES net for training purposes. Mail a set of NTS training messages to your ARES members. The Net Control can then call on individuals during any weekly net to originate a random message. The Michigan Net (QMN) has available on their web site: http://www.qsl.net/w8ihx/ a list of 75 training texts suitable for such messages.

## Skywarn Drills:

NTS message format isn't the only standardized message format utilized by ARPSC programs. For example, Skywarn nets often utilize a standard message format. For example, a common method is the "TEL" system, meaning:

## Time effect location

A typical "TEL" report might be: "This is W5ZAI, at 435 PM a wall cloud at I-35 and 6th Street," or "This is W8IHX, at 507 PM a funnel cloud at 6th and Congress moving NE at approximately 35 mph."

Net members are asked to originate at least one simulated Skywarn report during a weekly net. Be sure to remind them to insert the phrase "test message" in advance of their report. This exercise will improve the quality of Skywarn reports after just a few sessions.

Although these exercises may, in a few cases, require some cooperation from a served agency, they cost little or nothing to conduct. However, they do provide an opportunity for members to feel they are receiving useful training for emergency operations. When combined with some fun and camaraderie, they are also quite a bit more interesting than a typical radio club or ARES business meeting. Be sure to offer some type of incentive such as a nice certificate, award, or similar recognition.

If your ARPSC program or net has developed some useful and innovative exercises or training programs, which are both fun and effective, please drop me an e-mail. We will place a list of such training ideas on our QMN Web Page (see above) so that ARPSC programs throughout the country can borrow them.

*— Jim Wades, WB8SIW can be reached by mail at: 1708 Dover Ct. Ypsilanti, MI 48198; or by e-mail: wb8siw@arrl.net.*

HYBRID-QUAD ANTENNA

MINI HF BEAM

Most Antennas are large, heavy structures requiring heavy-duty towers, rotors and require extra muscle during installation and lots of extra dollars before the job is done.

The Hybrid-Quad is sensibly designed, built from high-quality materials and mounts with standard TV hardware and rotor. It's small size gathers very little ice and wind which allows you to spend more time ON the air, rather than IN the air.

MQ-1 Four-Band Antenna.....$279.95
6,10,15,20 Meters

Element Length...11 Ft.
Boom Length.....4.5 Ft.
Turning Radius...6 Ft. 2 in.
Wind Loading.....1.5 Sq. Ft.
Weight..... 15 lbs.
Power Rating....1200 Watts P.E.P.
Input Impedance-Single 50 ohm

MQ-2 Six-Band Antenna.....$369.95
6,10,12,15,17,20 Meters

Shipping charges extra.

T.G.M. Communications
121 Devon St. Stratford,
ON Canada N5A 2Z8
Tel. & Fax (519) 271-5928
http://www3.sympatico.ca/t.g.m./index.html

# Something new for QRP'ers

The full featured Elecraft K2 transceiver, which has enjoyed tremendous popularity since its debut a couple of years ago, has a junior partner, according to Eric Swartz, WA6HHQ, the company's chief operating officer.

Dubbed the K1, the latest kit in the Elecraft line runs up to five watts CW on two bands — chosen by the builder at the time the kit is ordered.

Elecraft describes the K1 as being "as small as a traditional QRP monobander, but packing many of the features of the K2." And it's trail friendly, being lightweight, rugged and physically small — characteristics well suited for backpackers.

The rig is 2.2 inches high by 5.2 inches wide and 5.6 inches deep.

"The K1's front panel is similar to the K2's, with an LCD frequency readout also capable of displaying output power, signal strength, supply voltage, keyer speed and other information," Elecraft announced in July. "Additional operating features include pushbutton band selection, RIT and XIT, 8-50 wpm internal keying with message memory and auto-repeat, and three crystal filter bandwidths." Upon ordering, builders specify which two bands they'd like their K1 to cover, choosing from the 40, 30, 20 and 15-meter bands.

**Elecraft's new K1 two-band QRP transceiver kit has the look and many of the features of the popular K2.**

"A great kit for first-time builders, the K1 uses only traditional through-hole parts," Elecraft officials said. "Wiring has been kept to an absolute minimum and the only instrument needed for final testing and setup is a digital voltmeter."

The K1 kit is $269. Options include a noise blanker ($29) and a three-point universal mounting bracket ($35) which permits angling the unit upward in either desktop operation or when you're sitting alongside your favorite wilderness trail.

A low-cost, internal automatic antenna tuner is also in development as an option.

For more information or to order, visit www.elecraft.com or contact sales@elecraft.com.

Via U.S. mail: Elecraft LLC, PO Box 69, Aptos, CA 95001-0069.

## QRP at the top of the world

There's no denying that high-frequency CW gets the most press and general interest where QRP operation is concerned.

Just listen any weekend around the QRP calling frequencies on 40 or 20 Meters and you'll hear what we mean. The proliferation of inexpensive low power transceivers has driven legions of QRPers to brass-pounding haunts from 1.8 to 30 MHz. Quite happily, I might add.

As exciting as CW operation can be, however, it has always been eye-opening and rejuvenating at KI6SN to venture into the VHF QRP spectrum — particularly on the wildly popular 2-meter FM band.

We're not talking about garden-variety repeater operation, however. If you've never tried putting a QRP FM simplex signal into simple gain antenna, you don't know what you're missing.

For the last few years, my Field Day operation has been devoted to terrestrial FM at 144 MHz. And every year I'm blown away by just what can be accomplished using the most rudimentary of radios with, at KI6SN, anyway, a homebrew 3-element vertically polarized portable beam cobbled from metal rods, PVC, and clothespins. But that's another story.

The trick, of course, is to make up for the liabilities of low power output and simple antennas by "going to the mountain top." Operating from an elevation of, say, 8,000 feet, which is not unusual in Southern California, can more than compensate.

A great signal, though, is wasted if there's no one on the air to hear you. That can create a mountain of frustration, especially if you've trudged miles to get to that perfect location.

How can you increase the chances of having your mountain topping expedition result in lots of 2-meter simplex contacts? Plan your trek on a contest weekend.

This month's American Radio Relay League-sponsored VHF QSO Party is 9-11 September. With some of the highest participation of any VHF contest

A Best Buy!

**Paddlette Co.**
**combines their miniature paddle key with a TiCK-4 based keyer in a single tiny case.**

***Introducing*** the **Model KP-4**, a high quality key/keyer combination costing less than many paddle keys alone.

- Size: 1.5" x 2" — Weight: 1.7 ounces
- 12 Functions including two 50 character memories and a beacon mode
- TiCK-4 chip features a battery saving timer and non-volatile memory (4 functions)
- 4-Year battery life based on using xcvr 2 hours a day, 365 days a year
- Easy to use push-button/paddle/piezo interface for accessing the 12 functions
- Extra strong magnetic hold-down + extra magnet
- Will key any normal solid state xmtr
- 1/8" (3.5 mm) mono output jack

*Price & Delivery:*
**KP-4: $84 ..... with knee mount: $94**
*Shipping by US Mail, 1st-class: $3*
*Send Check/M.O. to:* **Paddlette Co.**
**P.O. Box 6036 • Edmonds, WA 98026**
**KI7VY, Bob: (425) 743-1429**
**E-mail: bham379627@aol.com**

**QRP BALUNS & ANTENNA KITS**
Campers, Hikers & Stealth Installations
*Balun weighs only 2.2 oz.*
**Ricom • (707) 591-0688**
2120 Stater St. • Santa Rosa, CA 95404
**http://www.cds1.net/~k6zwb**



To subscribe call: 1-877-472-8643

during the year, most regions of the United States can count on the band being abuzz with signals.

It's a perfect weekend to experiment with low power 2-meter FM simplex equipment.

Got a handi-talkie with a fully-charged battery? Then you've got the basics for a mountain topping adventure. Add a simple antenna with a bit of gain and you're really cooking!

During June's Field Day weekend, I was fortunate to run into my longtime friend Lorraine Aubert, AC6XK, who was atop Tahquitz Peak near Palm Springs using an HT with a telescoping antenna attached. She was logging one contact after another from one end of the Los Angeles basin to the other — and beyond, I'm sure.

We were able to QSY to a non-contest frequency for a brief simplex chat. What fun — me sweating in a beach chair in my back yard, and she many, many miles to the east of me shivering high up Mt. San Jacinto. It just doesn't get much more interesting than that.

The national simplex calling frequency, 146.520, is off limits for contest operation. But three others quickly become a log jam of activity: 146.535, 146.550, 146.580. Pouncing on contest operators from one frequency to the next can yield a remarkable number of contacts. And you might be amazed by what distances can be spanned with 5 watts or less and a j-pole or simple rotatable beam.

An account of the KI6SN assault on Box Springs Mountain for the June '99 ARRL VHF QSO Party appeared in the July '99 edition of the Adventure Radio Society's monthly web magazine, *The ARS Sojourner*. For a look at what a very, very modest set-up can do, visit the organization's web site: www.natworld.com/ars and click on ARS Archives, Back Issues of *The ARS Sojourner*.

The VHF QSO Party exchange is simple: your call sign and grid square designation — a combination of letters and digits that precisely places your operating position on a giant overlay of squares covering the United States.

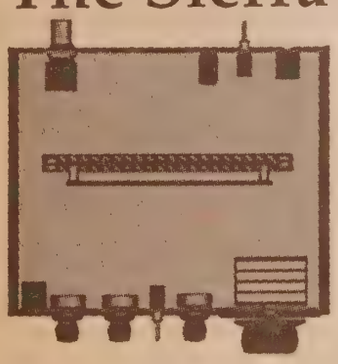
The grid square designator for the KI6SN Box Springs operation, for example, was DM13, the block in which my operating location fell. It is based on the latitude and longitude. In this case, 33 degrees, 56', 28" North by 117 degrees, 21', 45" West.

If you're not sure of what your grid square is, and you have Internet capability, go to: www.arrl.org/locate/

If you participate in the September VHF QSO Party, please let me know how you do. And if you're looking for something a little different than pounding brass on 40 Meters, this is certainly a good way to go.

*—Richard Fisher, KI6SN can be reached at: 1940 Wetherly Way, Riverside, CA 92506; e-mail: KI6SN@aol.com.*


The Sierra

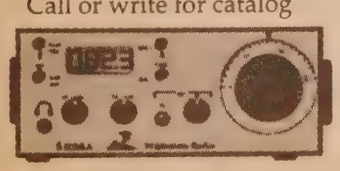


The Sierra is the only compact, low-current, multiband QRP transceiver available. It uses plug-in modules to cover all HF bands. There's no chassis wiring–all components, controls and connectors are mounted on a single board. The superhet receiver has 5 poles of crystal filtering, RIT, and AGC, yet only draws 35mA! Power out is 2 to 3 watts, with fast QSK and no relays. The prototype Sierra is featured on the cover of the 1996 ARRL Handbook, and lab test results can be found in the June, 1996 issue of *QST*.

Basic kit $215
w/6 bands $369
Call or write for catalog

New KC2 LCD Counter/Keyer/S-Meter/Wattmeter $75

The KC2 is our newest QRP accessory, packing a 4-digit freq. counter, memory keyer, bar-graph S-meter and digital wattmeter into a 1"H x 3"W module! It's the ultimate add-on accessory for the Sierra and other QRP rigs. Draws only 7mA.



Wilderness Radio

P.O. Box 734, Los Altos, CA 94023-0734 (650) 494-3806
http://www.fix.net/jparker/wild.html



Worldradio does it again!

SD-20
Antenna Support

❍ Incredibly strong lightweight carbon-fiber composite

❍ Compact when collapsed - only 47 inches, yet its six nested friction-locking sections extend to 20 feet.

Only $19.95 (plus S/H)

To order your SD-20
Send $19.95
plus $5.00 shipping
(CA add $1.55 tax)
to:

Worldradio
2120 28th Street
Sacramento, CA 95818

Or call to order by charge cards:
(916) 457-3655

# The Ionosphere and the Space Age

When I got home from work on Thursday 06 April, I had an e-mail waiting for me from NASA. No, they weren't looking for another astronaut or a rocket scientist. I subscribe to the NASA *Space Science News*, and they put out a bulletin earlier in the day about a coronal mass ejection (CME) that occurred on the Sun.

The Solar and Heliospheric Observatory (SOHO) captured pictures of a full halo coronal mass ejection that occurred at 1541UTC two days earlier (April 4). A "halo" CME is a CME that is moving almost directly toward Earth. As it looms larger and larger, it appears to envelope the Sun, forming a halo around our star. SOHO can take a picture of this, as it has an occulting disk on its coronagraph that blocks out the intense light of the sun so that the tenuous corona is visible.

Coronal mass ejections can carry up to 10 billion tons of plasma traveling at speeds as high as 2,000 km/sec. As this fast-moving material flows away from the Sun, it piles up against the slower-moving gas that had been ejected earlier. This produces a sharp, dense shock front.

This shock front passed the Advanced Composition Explorer (ACE) satellite at 1600UTC on 06 April. ACE was launched in August of 1997, and it orbits the L1 libration point. This is a point of Earth-Sun gravitational equilibrium about 1.5 million km from Earth and 148.5 million km from the Sun. The spacecraft spins at five rpm, with the spin axis generally pointed along the Earth-Sun line and most of the scientific instruments on the top (sunward) deck.

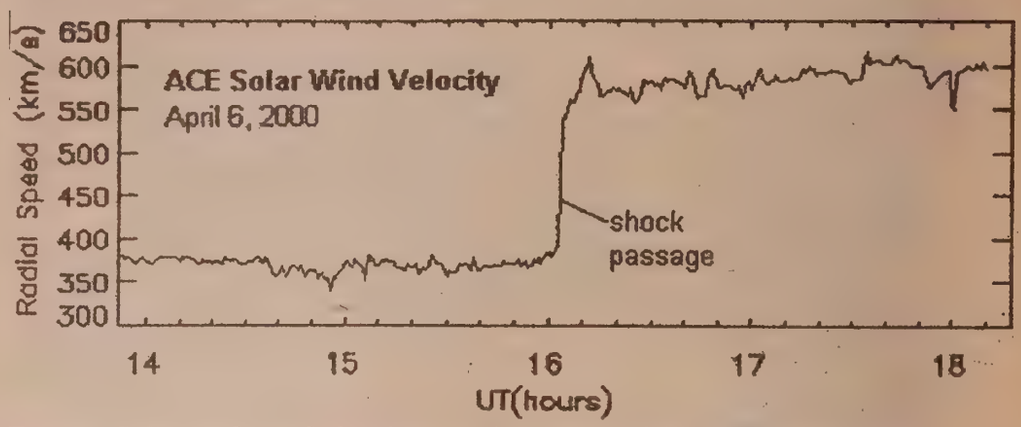



**Figure 1 Solar wind speed plot showing the passage of the CME shock front.**

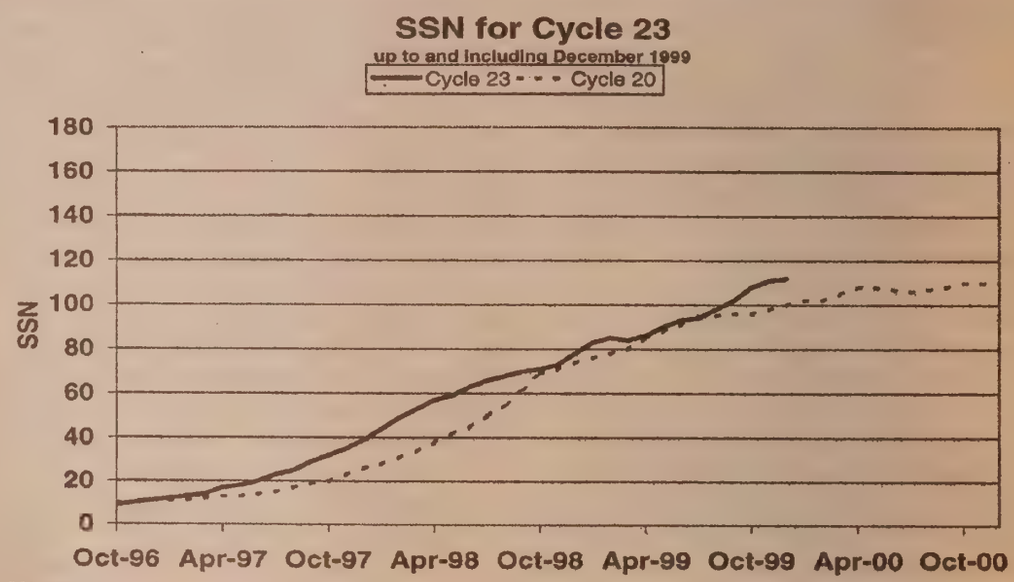



**Figure 3 cycle 23 SSN update.**

More information about ACE can be found at http://www.srl.caltech.edu/ACE/ace_mission.html.

Figure 1 shows the shock wave passage as measured by ACE. The solar wind jumped from about 350 km/sec to about 600 km/sec. This event is what triggered the NASA e-mail. It took about an hour for the shock wave to reach Earth. The impact upon arriving at Earth can easily be seen by using the data from the NOAA-15 polar-orbiting satellite.

This satellite counts electrons and protons, and displays the data as the amount of energy inputted into the polar caps and a measurement of particle count

IMRA
International Mission Radio Association Inc.
People Helping People
Service to Missioners (all denominations)
**Missionary Net** • 14.280 MHz, Mon. through Sat., 1 - 3 Eastern Time (1700-1900 Z DT, 1800-2000 Z ST)
Annually 20,000 check-ins, 11,000 traffic
**Membership** • 1,000 amateurs in 40 countries • Directory & bi-monthly newsletter
If monitoring the net, please come in & join us. You will be cordially received.
*For further information, write:*
Sr. Noreen Perelli, PBVM., KE2LT
3254 White Plains Rd. • Bronx, NY 10467
KC2KE@worldnet.Att.Net

Personalized Skywave Propagation Programs
- SKYCOM 2.0 — $20.00 (includes P/H)
- all WINDOWS OS and Y2K compatible
- Hourly HF Predicts & Beam Headings from your QTH to over 400 worldwide prefix areas
- Path Loss calculation identifies optimum path openings
- Comprehensive Technical Manual

ENGINEERING SYSTEMS INC.
P.O. Box 1934 • Middleburg, VA 20118
E-mail: w4het@aol.com

Software for Active Hams
FREE to download from:
http://www.taborsoft.com/
Rt. 2, Box 106 • Farwell, TX 79325
Home of CAPMan & WinCAP Wizard 2



To subscribe call: 1-877-472-8643

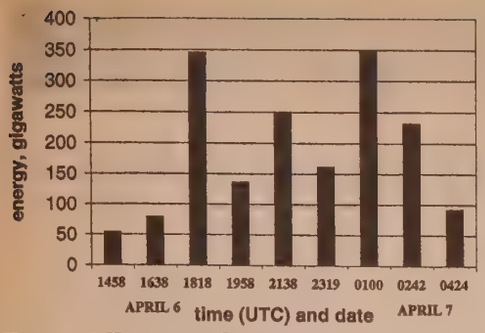



**Figure 2 Estimated energy input into the Northern Polar Cap**

above the normal baseline along its orbit. The auroral particle influx data is at http://sec.noaa.gov/pmap. The electron and proton detector data along its orbit is at http://sec.noaa.gov/tiger). Both of these web sites have an explanation of the data, and provide nice color-coded pictures of the particle data.

Figure 2 plots the numerical data from the pmap web site. It shows the estimated energy input, in gigawatts, into the northern polar cap for the times the satellite passed over the northern polar cap. Prior to and including the 1638UTC pass, things were pretty quiet. The sharp increase of particle influx on the 1818UTC pass and the next five passes shows much increased activity. It appears that things started to quiet down on the 0424UTC pass. A plot of the energy into the southern polar cap shows similar results.

This CME produced unexpected displays of aurora borealis in the Netherlands, in other northern European countries, in Canada, in Alaska, and in the continental United States as far south as North Carolina. It also triggered some nice 6M openings from the West Coast to New Zealand and from the Midwest to South America (the NASA e-mail prodded me to watch the PacketCluster spots very carefully that night).

As can been seen by Figure 2 and by the reports of auroral displays, this was a pretty big event. Because of our space age technology, we were aware of things to come before it even hit us. So go out and look at all this information that's available. Take the time to understand it (please) and let others know about it.

This month also includes an update of Cycle 23, with Figure 3 showing the progress. Also included on the plot is Cycle 20, to which Cycle 23 seems to be quite similar. Extrapolating the Cycle 23 line, with some help from the Cycle 20 data, shows that the SSN for this month, September 2000, should be about 120.

*— Carl Luetzelschwab, K9LA, can be reached at: 1227 Pion Rd., Ft. Wayne, IN 46845 or you can e-mail him at: k9la@gte.net.*

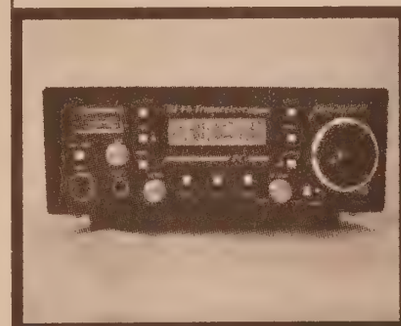

# NEW From Patcomm

# The PC-500 Dual Banders

For under **$400.00** you get lots of built-in features such as both **CW& SSB** modes, an **Iambic Keyer** with a **CW Keyboard Interface**, adjustable **1 to 15 Watts** of output power and Patcomm's unique **DVF** (Digital Variable Filter) filtering system providing a 300Hz to 3kHz continuously variable filter within the AGC loop for superb receiver selectivity. **VOGAD** and **RF Clipping** are used on SSB Transmit to provide that **Big Radio "Punch"**. This radio can be ordered with your choice of any two Ham Bands between **160 and 6 Meters**. This is the ideal rig for **QRP** and **Portable** operation.

**You get a Fully Assembled Radio at kit prices!**

## Summer Price Reductions on these Patcomm Radios

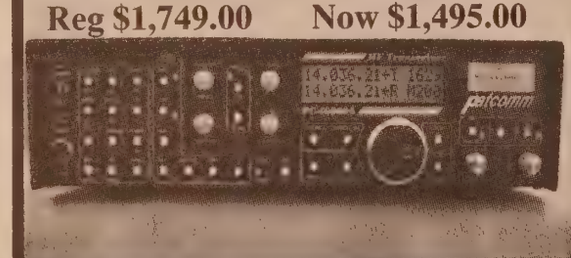


**PC-9000 HF+6 Transceiver**

Compact, rugged 40 Watt Ham Band Transceiver with DVF (Digital Variable Filter) and CW Keyboard Interface.

**Reg $799.00 (FM Adapter $79)**
**Now $695.00 Incl FM Adapter!**

**PC-16000A HF Transceiver**
**Reg $1,749.00 Now $1,495.00**



**100 Watt** with General Coverage Receive and CW/RTTY Send and Receive. **Collins IF Filters** and **DSP** Audio Filtering make this an exceptional rig.

patcomm corporation

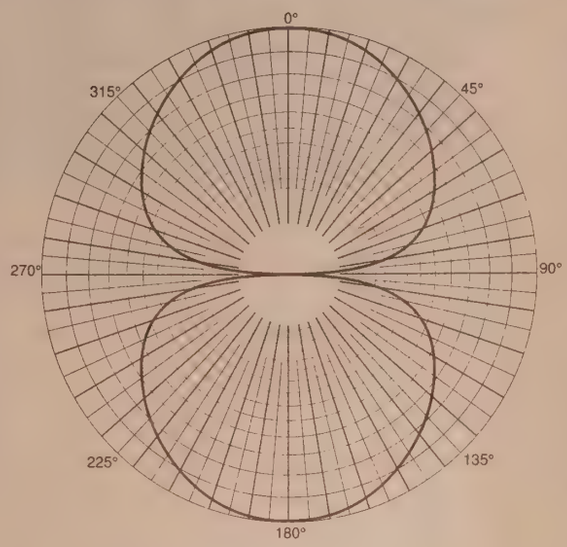
**Phone: (631)862-6511 Fax: (631)862-6529**
Web: www.patcommradio.com
E-mail: patcomm1@aol.com
7 Flowerfield, Suite M100
St. James, NY 11780

# Flat across the band or not —

## Which SWR is better?

Nothing makes Old Kurt's blood boil more than the antenna ads stressing low SWR across the band. As though that were a good thing, a desirable feature, and the important figure that separates the good from the bad antenna.

You've seen the beautiful full color ads from the big American manufacturer. The antenna glistening in the sunshine, the concave SWR curves — one for each band, the glowing text extolling the virtues of the new design. The gain figures either missing or in very small print. Doesn't small print just drive you crazy? Kurt thinks the advertising agencies must be staffed with frustrated lawyers! That would certainly explain their extensive use of small print. Or perhaps they have stock in companies that manufacture magnifying glasses.




The exasperating thing for Kurt is that, in spite of the thousands of words he has written to expose this fallacy, there are many who still believe SWR to be THE important figure to use to choose an antenna.

Tilting against windmills he may be, but Krusty Old Kurt will charge on this time by looking at two antennas from Italy. One has the flattest SWR curve you are ever likely to see — outside of a dummy load. The other has the un-flattest SWR curve Kurt has ever seen. You have to retune if you move 2-kHz.

Which is the better antenna? Read on.

"160 THRU 2 METERS, NO TUNING"... the brochure's headline proclaims. There is a photo of what, at first glance, appears to be a two element beam.

Closer examination though, shows it to be a lot different than a beam. It's about the size of a 10-meter beam but the driven element is a folded dipole fed at the center with a matching transformer. The center of the second wire is open and connected to the center of the other element. The connecting wires are crossed to give a phase shift.

The second element, which would be either a reflector or director in a normal beam, is also a folded dipole. Its second wire is split and terminated with a resistor. So you have sort of a combined two-element beam and T2FD terminated dipole in one antenna.

Except that it is not a beam. The manufacturer does not use the word anywhere in his literature. He calls it a "1.5-200 MHz 1 Kw PEP Continuous Coverage Antenna." And continuous coverage it is; SWR a little above 2:1 maximum over the whole frequency range. You can operate without a tuner on all the HF bands and on 6 and 2 Meters. If that is all you want in life, there it is!

The power rating is a different matter. Most antenna manufacturers put the PEP rating in big print at the top. Down below in little print (if at all) is the continuous power rating. In this case the manufacturer is up front about it and allows 100 watts on 160 Meters, with gradually rising continuous power capability in the HF bands to 500 watts on 10 Meters.

On HF the antenna gain is stated to be 3 dBd on 15 Meters and 6 dBd on 10 Meters. This is outstanding considering that the maximum possible gain for a two element 10-meter beam with this boom length is only 5 dBd! And this antenna dissipates some of the power into a resistor. Apparently miracles do happen.

There is no gain on 20 Meters and the gain falls off rapidly below this frequency. The efficiency may be very low, particularly when you get down to 80 and 160 Meters, but you will get out. Kurt proved this long ago with his garbage can and shopping cart loaded dipole.

TUNER-TUNER™

• Tune your tuner without transmitting.
• Save your finals.
• Stamp out tuneup QRM.

Turn it on. Adjust tuner for least receiver noise. Turn it off. Transmit with 1:1 SWR. It's that easy!

Model PT-340 ..... $99.95
+ $6 S&H U.S./Canada. Tax in Calif.

TOROID CORES

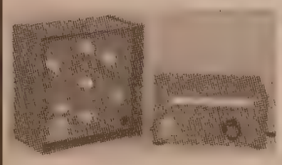
Palomar stocks ferrite and iron powder cores. Catalog free. Free RFI Tip Sheet tells how to get RFI out of TVs, telephones, stereo, etc. Our handy RFI kit fixes most household problems.

Model RFI-4 ..... $25.00
+ $6 S&H U.S./Canada. Tax in Calif.

MasterCard send for FREE catalog VISA

PALOMAR
BOX 462222 • ESCONDIDO, CA 92046
(760) 747-3343 • FAX: (760) 747-3346
e-mail: Palomar@compuserve.com
www.Palomar-Engineers.com

Need a new Antenna Switch? The RATPak System of 6 antennas to one feed line is the LAST antenna switch you will ever have to buy! See it at our web site:
www.arraysolutions.com



ARRAY SOLUTIONS
350 Gloria Rd.
Sunnyvale, TX 75182
(972) 203-2008
FAX: (972) 203-8811
E-mail:
wxeb@arraysolutions.com

• Six antennas – 5 kW CCS • All Aluminum WX proof and R.F. proof no plastic! • Micro-Strip PCB • Lightning protection • LED control box • Controllable with all automatic band decoders on the market • Flat SWR from DC to 6 m



To subscribe call: 1-877-472-8643

If low SWR is your greatest wish, here it is in one 1.8 to 200 MHz antenna. Details at www.antenna.it.

## Big small loop

A large loop (1/8λ diameter or larger) makes a good transmitting antenna. A small loop (1/10λ diameter or smaller) has a different directional pattern and usually is used for direction finding and low noise reception.

Small loops can be used for transmitting but you have to be careful. Their radiation resistance is very low so you have to use low loss construction. If their efficiency is even mediocre, the capacitor voltage is very high. Kurt has seen many loops made of #18 or similar wire tuned by receiving type variable capacitors that just have to be woefully inefficient.

This Italian loop covering 160, 80, and 40 has none of these problems. First of all it is 13 feet in diameter which is about as big as you can go on 40 Meters and still have a "small loop." That's why Kurt calls it a "big small loop."

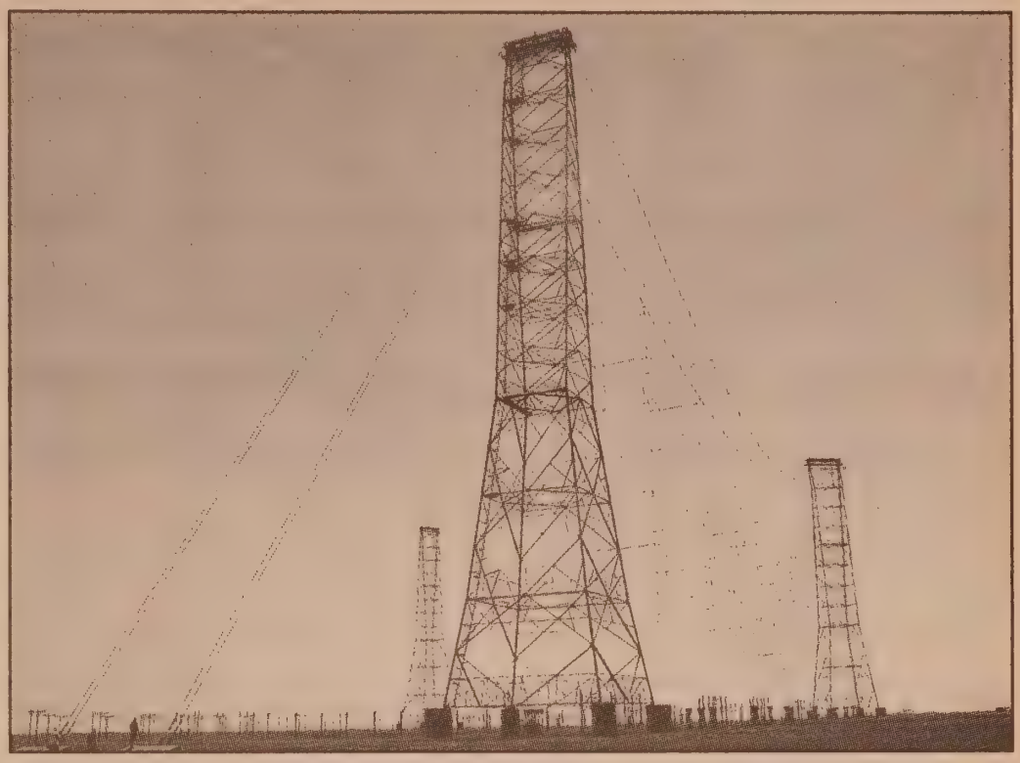
Kurt calculates that a 13 foot loop has a radiation resistance of .006 ohms on 160 Meters — still pretty small. So how do they keep the loss resistance low? By using a big conductor for the loop. No number 18 wire here! The loop is made of aluminum tubing five and a half inches in diameter.

No receiving type tuning capacitor either. The voltage across the capacitor? With 600 watts of power into the loop the capacitor sees thousands of volts. It has the look of a giant heat sink. Really thick plates widely spaced.

There is no mention of how the loop is tuned across the bands. You'll have to tune it every time you change frequency. The bandwidth? On 160 Meters it's 3-kHz.

The efficiency on 160 Meters? 40%. On 40 Meters its 93%. A lot better than the wide-band low-SWR antenna described above.

Why would anyone want such an antenna? Here's why: It's only 13 feet high and 13 feet wide so it can fit in a small yard. With a little advanced planning it could be concealed from the neighbor's view and thus used in a restricted area. Remember, a 160-meter dipole is 240 feet long and should be that high in the air to work really well. Loops work well when sitting right on the ground. 40% efficiency doesn't sound that great but short verticals or shortened dipoles are usually a lot worse on this band.



**Kurt wants to give you one of his caps! All you have to do is send Worldradio a postcard with your guess — what kind of antenna is this? Your correct answer will enter you in the drawing. Send your entries to: Worldradio, 2120 28th Street, Sacramento, CA 95818. Please specify if you want the "classic white" or "working man-blue" cap. Kurt will choose five correct entries at random. Winners will recieve their caps in the mail. Entries must be postmarked by 15 September.**

So is Kurt going to buy one? No. He'd love to have one but Lil is not likely to increase his allowance enough to spring for the $1,765 price tag. Lil still has her heart set on that new super-duper computerized sewing machine that does everything but weld metal. If I get another antenna before she gets her new sewing machine, her first project may be a body bag for Krusty Old Kurt. So, you get one and let Kurt know how well it works. You can see it and a couple of higher frequency loops at www.ciromazzoni.com.


THE ORIGINAL WD4BUM
HAM STICK™ ANTENNAS
for HF MOBILE OPERATION
$24.95 each

The only lightweight HF mobile antenna recommended by noted author Gordon West WB6NOA

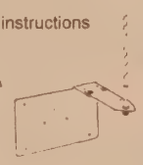
- Monobanders for 75 to 6 meters.
- Very rugged fiberglass & stainless steel.
- Telescopes for easy adjustment.
- 3/8 x 24 TPI base fits most mounts.
- Low profile & low wind load.
- Needs no springs or guys.
- Complete tuning & matching instructions included.
- Approximately 7 ft. tall.
- 600 watts.

| Cat.# | Band | Cat.# | Band |
|---|---|---|---|
| 9175 | 75 meters | 9115 | 15 meters |
| 9140 | 40 meters | 9112 | 12 meters |
| 9130 | 30 meters | 9110 | 10 meters |
| 9120 | 20 meters | 9106 | 6 meters |
| 9117 | 17 meters | | |

NEW LICENSE PLATE MOUNT NEW

- Mounts behind license plate
- Mount is constructed of type 304 Stainless Steel
- Complete with S/S hardware
- For Antenna's with 3/8" x 24 Thread
- Accepts PL-259 Direct
- Ground strap included
- Complete mounting instructions included

100 % MADE IN USA



$44.95 CAT. #TM-1

MOBILE COLINEAR ANTENNAS
THE ULTIMATE PERFORMER

- Honest 4.5dB gain.
- 1000 watts DC.
- 17-7 ph stainless steel top sec.
- Rugged fiberglass base station.
- Base fitting is std. 3/8 x 24 TPI.

Length
9007 - 146 MHz 7'2" • 9038 - 220 MHz 4'9"
9440 - 440 MHz 2'5"
$24.95

Base station version available $34.95
9007-B • 9038-B • 9440-B

Tri-Magnetic Mount

NEW

MODEL 375
Only $39.95

- Holds all Hamstick Antennas and many others.
- Over 400# of holding power.
- 12" x 14" foot print.
- 3/8 x 24 thread mounting.
- 15' RG 58 coax w/PL-259.
- No rust aluminum construction.

Lakeview Company, Inc.
3620-9A Whitehall Rd., Anderson, SC 29626 • 864-226-6990
FAX: 864-225-4565 • E Mail: hamstick@hamstick.com • www.hamstick.com
All 100% made in USA • Add $7.50 per order for S/H

# Contests Chart

| Contest | Date & Time | Bands | QSO points | Multipliers | Exchange | Entry Categories | Entries |
|---|---|---|---|---|---|---|---|
| All Asia SSB (Japan) | 0000Z 2 Sep 2359Z 3 Sep | 160-10M SSB | 1pt/20-10M QSO 2pt/80M QSO 3pt/160M QSO Work Asia only | Asian prefixes worked on each band | RS Age (YLs may send 00) | Single op: All bands, Single band Multi-op: Single orMulti-tx | 30 Sep Box 377 Tokyo |
| LZ DX (Bulgaria) | 1200Z 2 Sep 1200Z 3 Sep | 80-10M CW | 6pt/LZ; 3pt/DX; 1pt/NA | ITU Zones worked on each band | RST ITU Zone | Single Op: All bands, Single band Multi-op, singletx; SWL | 1mo. Box 830, 1000 Sofia |
| North American Sprint - CW (NCJ) | 0000Z 3 Sep 0400Z 3 Sep | 80-20M CW | 1pt/QSO | Canadian Call areas, US States, other NA countries | Ser# Name QTH | Single op all bands only; Entrants may combine their scores to form a "team". | 1mo. N6TR |
| Michigan QRP Club Labor Day CW Sprint | 2300Z 4 Sep 0300Z 5 Sep | 160-6M CW | 5pt/ QSO with member 4pt/DX 2pt/USA and Canada | US States, Canadian Provinces and Territories, DXCC countries Total score x1.25 if you used a home-made TX or RX, x1.5 if all home-brew gear | RST QTH MI-QRP membership number | A- 250mw or less B- 250mw to 1w C- 1w to 5w D- Over 5w out | 30 days N8CQA |
| European DX SSB (Germany) | 0000Z 9 Sep 2359Z 10 Sep | 80-10M SSB | 1pt/Eur; 1pt/QTC QTC: reports of previous QSOs Time:Call:Ser# | WAE Countries worked on each band. x2 on 10/15/20 x3 on 40M x4 on 80M | RST Ser# | Single Op: All bands, Single band Multi-op: Single ormulti-tx All entrants may usePacketCluster | 15 Oct Box 1126 D-74370 Sersheim Germany |
| ARRL VHF QSO Party | 1800Z 9 Sep 0300Z 11 Sep | 50MHz to microwaves | 1pt/50 or 144MHz QSO 2pt/220 or 432MHz QSO 3pt/903 or 1296MHz QSO 4pt/above 2304MHz Don't use 146.52 or rptrs | Grid squares worked on each band | Grid Square | Single Operator:Multi-band, single band, QRP portable (max 10w out) Rover (single ormulti-op, operating from at least two grids) Multi-op. LimitedMulti-op (max four bands) | 30 days ARRL or e-mail to SeptemberVHF@arrl.org |
| North American Sprint SSB | 0000Z 10 Sep 0400Z 10 Sep | 80-20M SSB | 1pt/QSO | Canadian Call areas, US States, other NA countries | Ser# Name QTH | Single op all bands only; Entrants may combine their scores to form a "team". | 1mo. K7GM |
| Scandinavia CW | 1500Z 16 Sep 1800Z 17 Sep | 80-10M CW | 1pt/QSO; Work JW JX LA OH OJ OX OY OZ SM TF | Scandianavian prefixes worked on each band | RST Ser# | Single Op: All bands, QRP Multi-op singletx | 31 Oct EDR |
| YLRL Howdy Days (for Women hams) | 1400Z 16 Sep 0200Z 18 Sep | 80-10M; CW, SSB, RTTY | 2pt/QSO with YLRLmbr 1pt/QSO with others | None | RST | Single Operator only | 30 days K0JFO |
| QCWA QSO Party | 1900Z 16 Sep 1900Z 17 Sep | 160M- UHF+ | 1pt/SSB QSO 2pt/CW QSO | QCWA Chapter, CanadianProvinces&Terrs, US States, DXCC countries count once on ea. "band". Rules allow for 15 "bands": 160M; 80, 40, 20, 15, 10(All CW & SSB); 6M, 2M, 135cm, 70cm... A QSO w/W2MM is 3mulplr pnts. | 1. RST 2. Year first licensed 3. QCWAChapter# or Prov/Terr. State or country | QCWA members, QCWA non-members Novices | 30 days W4BK |
| Atlantic QSO Party (Canada) | 0000Z 17 Sep 2359Z 17 Sep | 160-10M CW and SSB | 1pt/QSO NB/NF/NS/PEI work everyone; other work only Mar and NF | Maritime counties and Newfoundland federal ridings. Mar and NF stations also count Provs/Terrs, US states and DXCC countries once, regardless of band. | RST QTH | Single op High Power or Low Power: Mixed Mode, CW only, SSB only Multi-op High Power or LowPowerr: Mixed Mode, CW only, SSB only | 30 days; LCARC, Box 6552Stn.B Saint John NB E2L 4R9 CANADA |
| CQ/RTTY Journal WW DX RTTY | 0000Z 23 Sep 2359Z 24 Sep | 80-10M RTTY | 1pt/own country 2pt/other NA countries 3pt/other continents | DXCC + WAE Countries + CanadianProvs, Terrs, Labrador + US States | RST QTH CQ Zone | Single Op: All bands High Power, All Bands Low Power, Assisted, Single Band Multi-op: Single TXHiigh Power, Single TX Low Power, multi-tx | 1 Dec, P. O. Box DX Stow MA, 01775 USA or e-mail to K1RY@contesting.com |
| Scandinavia SSB | 1500Z 23 Sep 1800Z 24 Sep | 80-10M SSB | 1pt/QSO; Work JW JX LA OH OJ OX OY OZ SM TF | Scandianavian prefixes worked on each band | RST Ser# | Single Op: All bands, QRP Multi-op singletx | 31 Oct EDR |
| Louisiana QSO Party | 0000Z 30 Sep 2400Z 30 Sep | 80-2M SSB and CW | 2pt/SSB QSO 3pt/CW QSO | Stations outside LA: 64 Louisiana parishes per band Stations in LA: 80 ARRL sections per band | RST QTH | Single op: Mixed mode, SSB only, CW only, each with QRP(5wmax), Low Power (100w max) and High power categories Multi-op Mixed mode: QRP, low and high power | 31 Oct PO Box 1871 West Monroe LA 71294 or e-mail to laqp@tchams.org |
| RSGB 21/28MHz SSB (UK) | 0700Z 1 Oct 1900Z 1 Oct | 21.2-21.35 28.45-29.1 | 3pt/QSO Work UK stations only | UK Post Code areas UK stations willsendthe first two letters of their post code. | RST Ser# | Single op, Single op QRP Multi-op singletx | 14 Nov G3UFY |
| VK/ZL/Oceania SSB | 1000Z 7 Oct 1000Z 8 Oct | 80-10M SSB | 3pt/10M 2pt/15M 1pt/20M 5pt/40M 10pt/80M work Oceania only | Oceania prefixes on each band Score each band separately, then sum scores from all bands. | RST Ser# | Single op all bands Multi-op all bands SWL | 6 weeks NZART Box 40-525 Upper Hutt |
| European Autumn Sprint SSB | 1500Z 7 Oct 1859Z 7 Oct | 80-20M SSB | 1pt/QSO | None | your call, other stn's call, Ser#, name | Single operator only | 15 days I2UIY |
| California QSO Party | 1600Z 7 Oct 2200Z 8 Oct | 160-2M CW & SSB | 2pt/SSB; 3pt/CW Work CA only | California Counties (58) | RST Ser# QTH | Single Op, All bands Multi-op, singletx | 15 Nov, Box 853 Pine Grove CA 95665 |
| Ibero-America Contest (Spain) | 2000Z 7 Oct 2000Z 8 Oct | 160-10M SSB | 3pt/Ibero-Am. 1pt/others | CE CO CP CR CT CX C3 C9 DU EA HC HI HK HP HR KP4 LU OA PY TG TI XE YN YS YV ZP 3C + their DXCC dependencies on ea. band | RS Ser# | Single op: all bands, QRP Multi-op singletx SWL | 30 Nov Conception Arenal 5 08027 Barcelona |
| YLRL Anniversary Party CW | 1400Z 6 Oct 0200Z 8 Oct | 80-10M CW | 1pt/QSO on your section 2pt/QSO with others | ARRL Sections, CanadianPorovinces and territories, DXCC countries | RST Section | Single Operator only | 30 Days K0JFO |
| VK/ZL/Oceania CW | 1000Z 14 Oct 1000Z 15 Oct | 80-10M CW | 3pt/10M 2pt/15M 1pt/20M 5pt/40M 10pt/80m work Oceania only | Oceania prefixes on each band Score each band separately, then sum scores from all bands. | RST Ser# | Single op all bands Multi-op all bands SWL | 6 weeks NZART Box 40-525 Upper Hutt |
| European Autumn SPrint CW | 1500Z 14 Oct 1859Z 14 Oct | 80-20M CW | 1pt/QSO | None | your call, other stn's call, Ser#, name | Single operator only | 15 days OK2FD |
| Pennsylvania QSO Party (USA) | 1600Z 9 Oct 2200Z 10 Oct 05-13Z Off time | 160-10M CW & SSB | 1pt/SSB; 1.5pt/CW 2pt/160, 80M CW 200pt/QSO with W3YA Work Penn. only | Pennsylvania counties (67) Penn. stations will send a 3-letter countyabbrev. x2 if you are QRP | RST QTH | Single op: High power, 100w, QRP Multi-op: Singletx, multi-tx | 15 Nov Box 614 St. College. PA 16804 USA |
| RSGB 21/28MHz CW, (UK) | 0700Z 15 Oct 1900Z 15 Oct | 21-21.075 28-28.075 | 3pt/QSO Work UK stations only | UK Post Code areas; UK stns will send the 1st 2 letters of their post code. | RST Ser# | Single op, Single op QRP Multi-op singletx | 14 Nov G3UFY |

Addresses: CQ - 25Newbridge Rd., Hicksville NY, 11801 USA. ARRL - 225 Main StJewington CT, 06111 USA. Callsign - Callbook Address Bands: The 30, 17 and 12m bands are never used in any contest.
Please confirm the dates of these events on thintrenet at or http://www.sk3bg.se/contest/



To subscribe call: 1-877-472-8643

## ALASKA

**Anchorage ARC** ARRL State Convention 16/17 Sept. at Ben Boeke Indoor Ice Arena. Open Saturday 10 a.m. - 5 p.m., Sunday 10 a.m. - 3 p.m. Adm. $3 (12 and under Free). Tables: Amateur $10 + 10% of sales, Commercial $35 flat fee. Dealers, guest speakers, demos, VEC exams, FCC commercial license exams, swapmeet, auction, country store, food, banquet, fun. For info: Lil Marvin, NL7DL, 907/277-6741, e-mail: rlment@alaska.net

•

The **Rhode Island Amateur FM Repeater Service, Inc.**'s Spring Flea Market and Auction, on 16 Sept, at the VFW Post 6342, Main St., Forestdale (No. Smithfield), RI. Flea Market Space: $5. Talk-in: 146.76. For more info: Rick Fairweather, K1KYI, 106 Chaplin St., Pawtucket, RI 02861. E-mail: k1kyi@arrl.net. Phone: 401/725-7507 please call between 7 and 8 p.m.

## ARKANSAS

**Queen Wilhelmina Hamfest Association** Mena Hamfest 8-9 Sept. at Queen Wilhelmina State Park, near Mena, AR. (13 miles west of Mena, on Hwy 88). Family oriented setting with a zoo, miniature golf, scenic railroad, RV and tent camping as well as a lodge. Free admission ($2 registration guarantees next year's flyer). Fleamarket space $5 outside; $10 inside. Commercial vendors with BAMPAC as the featured vendor. TI; 146.79(pl 100.0) or simplex 146.49. For info contact Charlotte, KC5DOR, at 870/642-7656 or e-mail; blee@ipa.net.

## CALIFORNIA

The **Sonoma County Radio Amateur's** Swapmeet and VE Event, will be on 16 Sept., at the Lewis Adult Education Center. Admission: FREE. Table: $10. Set-up starts at 6:30. For more info: Rick Reiner, K6ZWB, 2120 Slater St., Santa Rosa, CA 95404. Phone: 707/575-4455. E-mail: k6zwb@cds1.net. Website: http://www.cds1.net/scra.

## CONNECTICUT

The Western Connecticut Hamfest 9 a.m. to 2 p.m. at Edmond Town Hall (RT 6, exit 10 on I-84). Adm. $4 (under 12 FREE). Tables $10, tailgate space $6. Dealers, computers, refreshments. TI: 146.67(-) pl 100. For info: Seab Lyon, AA1MY, 12 Willow St. Beacon, NY, 12508.

## DELAWARE

The **Delaware Lehigh ARC** Hamfest, on 16 Sept, at the Schnechsville Fire Dept. Admission: $5. Tailgaters: $7. Indoor Tables: $11. Info: http://www.kutztown.edu/faculty/chuk/dlarc/; 610/261-0403.

## FLORIDA

The 10th Pasco County Hamfest, will be on 24 Sept, from 9 a.m. - 3 p.m., at the New Port Rickey Recreational Center(6630 Van Buren Rd., New Port Richey, FL). Admission: $5(XYLs and under 12 FREE). Tables: $15. Electric $5. Tailgating: $3. For more info: Ron Wright, N9EE 8849 Gum Tree Ave, New Port Richey, FL 34653. Phone: 727-376-6575. E-mail: N9EE@akos.net.

## ILLINOIS

**W9DXCC** Convention and Banquet 16 Sept. at the Holiday Inn, Rolling Meadows, IL. ARRL forum, DXpedition presentations, DXCC card checking. For info: Bill Smith, W9VA, Phone: 847/945-1564; e-mail: w9VA@aol.com or web site: www.qth.com/w9dxcc.

•

**Peoria Area ARC** Superfest 15-17 Sept. at Exposition Gardens, North Moor & University, Peoria, IL. Gates open 6 a.m, Bldg open 8 a.m. Central Illinois' largest Radio/Computer/Garage Sale. Adm. $5. Fleamarket spaces available. Hourly prizes. For info call 309/692-FEST.

•

**Chicago FM Club** Radio Expo 2000 23/24 Sept. at Lake County Fairgrounds (Rte 120 & 45), Grayslake, IL. Adm. $6/adv, $8/door. Tables $20. Flea market, VE tests and forums. Free parking and camping. TI: 146.76 (-pl 107.2. For info: www.chicagofmclub.org or call 708/457-0966.

## MAINE

**Bagley ARC** Hamfest, 8 a.m. - 2 p.m., 23 Sep. at Ella Burr School in Lincoln, ME. Free adm. Tickets for prize drawings $1 each. VE exams, displays, dealers. For info: Max Soucia, tel. 207/564-8943.

## MARYLAND

The **F.A.R.Fest** 2000 will be on 24 Sept., at Prince Georges Stadium(Bowie, MD). Talk-in: 147.105+ and 146.520 simplex. For more info: Dan Blasberg, KA8YPY 301/345-7381. Email: blasberg@bellatlantic.net.

## MICHIGAN

**Grand Rapids ARA** Super Swap 16 Sept. 8 a.m. - 1 p.m. at 9757 Duncan Lane in the village of Caledonia. (Setup Friday night). Adm. $5. Tables $8. TI: 147.260(pl 84.8). For info: e-mail; n8dgd@home.com.

•

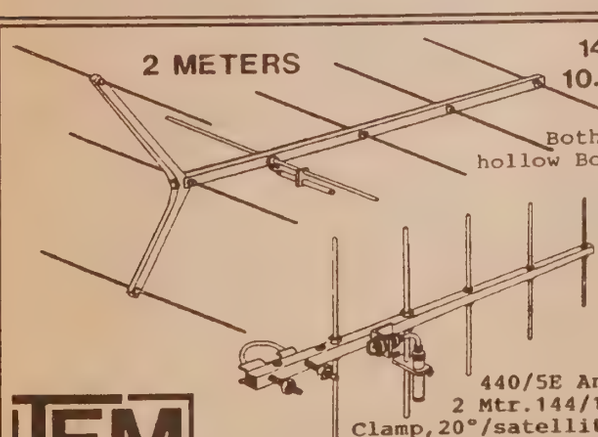
The **Amateur Radio Association of Hansen Hills** Hamfest, will be on 9 Sept. at Hansen Hills Recreation Center. Admission: $2. Tables: $5. Outside Space: $10. VE testing @ 10 a.m. For more info: Jon Schultz, jschultz@i2k.net 517/348-4966. Website: www.arahh.org/swapshop.html.

## NEW YORK

**Long Island Mobile Amateur Radio Club** Hamfair/Electronics Fleamarket 10 Sept. 8:30 a.m. - 2 p.m. at Briarcliffe College, 1055 Stewart Ave., Bethpage, NY. Adm. $5 (under 12 Free). Tailgate space $15. TI: 146.850(pl 136.5). For info: 516/520-9311 (24 hours) or see the web page: www.limarc.org.

•

**Amateur Radio Association of the Southern Tier** Elmira International Hamfest/Computerfest 6 a.m.-3 p.m. 30 September at the Chemung County Fairgrounds in Horseheads, NY. Adm. $4/adv, $5/door. Dealer displays, fleamarket, breakfast and lunch. TI: 146.700(-) or 147.360(+). For VE exams call John at 607/565-4020. Dealers call Gary at 607/739-0134. Tickets call Dave at


440/5E Ant.28"lg.420/450MHz..$65.95
2 Mtr.144/148MHz Ant.,64"lg.W/Tilting
Clamp,20°/satellite Wk or low areas..$139.95
Made U.S.A. Both Antennas $185.90
Shipping/10 working days
For more info send S.A.S.E.

TEM ANTENNAS
PO. BOX 381
MILFORD NH.03055-0381

Webster
Since 1974 Your Factory
AUTHORIZED BIRD DISTRIBUTOR
115 BELLARMINE, ROCHESTER, MI 48309
Toll Free: 800-521-2333 Fax: 248-375-0121

607/589-7636 or web site: www.arast.org.

•

The **Margaretville ARC** Hamfest, will be on 23 Sept. Admission: $4. Table: $10. Tailgating: $7. VE exams @ 10 a.m. Door prizes. For more info: Lester L. Bourke Sr., KB2DCE, Dry Brook Rd., Arkville, NY 12406. Phone: 914/586-3186 or 914/586-2324. E-mail: bourke@catskill.net. Website: www.catskill.net/marc.

•

The **Metro 70cm** Network's Computer and Electronic Fleamarket, will be on 24 Sept., from 9 a.m. - 3 p.m., at Lincoln High School (Kneeland Ave., Yonkers, NY 10704). Admission: $6(under 12 FREE). Talk-in: 440.425 pl 156.7, 146.910 pl 114. For table & general info: Carl Everts, N2VQP 914/969-7888. E-mail: ceve914@aol.com.

•

The **Saratoga County R.A.C.E.S. Association** Hamfest, will be on 9 Sept., at the Saratoga County Fairgrounds(Ballston Spa, NY) Admission: $5. Tables: $5. Tailgating: FREE with adm. Door prizes, fox hunts, VE exams. Talk-in: 146/40/147.00 and 147.84/147.24. For more info: Darlene Lake, N2XQG, 314 Louden Rd., Box #84, Saratoga Springs, NY 12866; 518/587-2385. Packer: n2xqg@wa2umx. Email: lake@capital.net

•

The **Westchester Emergency Communication Association's** Hudson Division Convention, on 16 Sept., from 8 a.m. - 2 p.m. at the Westchester County Center, White Plains, NY. Admission: $6. Tables: $25. Setup at 6 a.m. Talk-in: 147.06, PL 114.8. Forums, VE exams @ 8:30 - 11:30, vendors, and a flea market. For more info: WECA Hotline 914/714-6606. Website: ww.hudsonconvention.org.

## OHIO

The **Findlay Radio Club** Hamfest, will be on 10 Sept, at Hancock County Fair Grounds (Findlay, OH). Admission: $5. Tables: $14. Door prizes, demos, forums, contest and more. For more info: Findlay Hamfest, Bill Kelsay - Chairman, P.O. Box 587, Findlay, OH 45839. Website: http://www.bright.net/~kanga/w8ft/. E-mail: kanga@bright.net.

•

The **Greater Cincinnati ARA** Communications Expo 2000 hamfest/electronics show is on 17 Sept., from 8 a.m. - 4 p.m., at the Kolping Center(North of Cincinnati, OH). Flea market, vendors, race car races, prizes, forums, fox hunts, Ve exams, and much much more. Admission: $5 advanced, $8 at gate. Talk-in: 146.88(-). For more info: Jim Weaver, K8JE 513/459.0142. E-mail: k8je@arrl.net. Website: http://w3.one.net/~rkuns/expo2000/.

## PENNSYLVANIA

**Mt. Airy VHF Radio Club, Inc.** Microwave Update 2000 29/30 September 2000 at Holiday Inn Select, Bucks County just north of Philadelphia, PA. It is centrally located between the Bucks County countryside and historic Philadelphia. There will be evening flea markets at the hotel and don't forget Hamarama on Sunday. Please add flashlights to your packing list. The doors to the Pack Rat hamfest (Hamarama) open Sunday at 8 a.m. but Hamarama has always been known for the "Flashlight Shoppers."

Advance Registration is $40.00 with forms available at the web site below. Send registration to Microwave Update, P.O. Box 682, Hatboro, PA 19040. Hamarama and Dinner

## WEST VIRGINIA

The **Uniontown ARC** Gabfest will be on 2 Sept, starting 8 a.m., at the club ground on Old Pittsburgh Rd. (Uniontown, PA). Tables available. Tailgating: FREE. Talk-in: 147.045+ and 147.255+. For more info: Carl (WA3HQK) or Joyce (KA3CUT) Chuprinko, 84 Heaven Hill Rd., Morgantown, WV 26508. Phone: 304/594-3779.

# Northwest VHF/UHF conference

A Pacific Northwest VHF UHF Conference will take place this year thanks to the efforts of Arnie Jensen, W7DSA of Sacppose, Oregon. The date is Saturday, 23 September at the Village Inn at 535 South Highway in the city of St Helen. The agenda has yet to be determined and topics are being solicited and are appreciated. Ideas go to Jim Christian via e-mail at K7ND@worldnet.att.net. — *Newsline*

# VE4XN honored

The Canadian Amateur Radio Hall of Fame Board of Trustees has announced that Mr. Dave Snydal, VE4XN has been chosen as the 1999 recipient of the Hall of Fame Award. Mr. Snydal will shortly be inducted into the Canadian Amateur Radio Hall of Fame as a Member. — *RAC, Newsline*

# Canadian lowfers report first 136 kHz QSO

Larry Kayser, VA3LK, and Mitch Powell, VE3OT, report that, despite poor to medium conditions, they successfully completed the first two-way QSO in Canada on 136 kHz at 1400 UTC on 22 July. The distance was 431 km (268 miles). The pair used very slow-speed CW, QRSS, where dits are 3 seconds long and dahs are 9 seconds long! VA3LK and VE3OT have received special letters of authorization for LF testing and evaluation. Frequency range is 135.7 to 137.8, emissions permitted include CW, FSK and BPSK at a bandwidth of up to 3 kHz. Powell says VA3LK is operating on 137.710 kHz and he is on 137.780 kHz. More information on LF Amateur Radio is available on the Radio Amateurs of Canada Web site. — *VE3OT/RAC, ARRL Letter*

# EMERGENCY POWER

Ham radio operators in and around the city of New Rochelle New York may have overreacted after reading an Internet posting that the city council was considering a ban on all emergency power generators because some of the city's residents consider them to be annoying.

Yes, there are proposed controls but it does not cover all generators. And contrary to the posting, its sponsor says that it should not have any impact on Ham radio emergency communications.

**MOBILE COMM. GUIDE & CRUISER'S RADIO GUIDE**
Great books for mobile/boating!
At major ham dealers/bookstores.
**FMS Services • 2539 S. Fairplay Way**
**Aurora, CO 80014 • (303) 695-8715**
Roger KØYY • fmsserve@aol.com

**NOTT LTD.**
3801-4001 LA PLATA HWY.
FARMINGTON, NM 87401
**BROADBANDER BB3**
Remotely tuned 3.5-30 MHz mobile antenna
Monoband operation on 160 meters with accessory coil.
**BB10 BASE STATION ANTENNA**
160, 80 and 40 meters. High efficiency with only 34' height.
Remotely tuned from your hamshack.
**PARK N' TALK WHIP FOR STATIONARY OPERATION**
Improve your mobile antenna with a 22' whip on top
Telescopes for easy storage.
**1-800-443-0966**
Phone 505-327-5646
Fax 505-325-1142
email: judy@tjantenna.com
MasterCard / Visa / Discover



To subscribe call: 1-877-472-8643

*Information in "New Products" is supplied by the manufacturers to acquaint **Worldradio** readers with new products on the market.*

## Elecraft K1 dual-band HF transceiver

Elecraft has followed the launch of its popular K2 transceiver with the announcement of a companion, the K1. As small as a traditional QRP monobander, but packing many of the features of the K2, the new radio runs up to 5 watts of CW on two user-selected bands.

Created by Elecraft co-founders Wayne Burdick, N6KR, and Eric Swartz, WA6HHQ, the new rig takes small, backpack-friendly QRP transceivers to a new level.

Operating features include pushbutton band selection, RIT and XIT, 8-50 wpm internal keying with message memory and auto-repeat, and three crystal filter bandwidths.

The rugged enclosure measures only 2.2 inches high by 5.2 inches wide and 5.6 inches deep.

The K1 can be ordered with any two of the following bands: 40, 30, 20 and 15 Meters.

A great kit for first-time builders, the K1 uses only traditional through-hole parts. Wiring has been kept to an absolute minimum and the only instrument needed for final testing and setup is a digital voltmeter.

The K1 sells for $269. Options include a noise blanker ($29) and a three-point universal mounting bracket ($35) which permits angling the unit upward in either desktop or field use. A low-cost, internal automatic antenna tuner option is also planned.

For more information or to order, visit Elecraft's web page at: www.elecraft.com or contact Elecraft by e-mail at: sales@elecraft.com.

## Swedish CW keys

Morse Express is now offering the original "Swedish Pump Key", in two versions, from Lennart Pettersson in Hoverberg, Sweden. The base measures 4 inches by 2 inches by 1 1/2 inches high. The overall length (from the rear of the base to the front edge of the know) is 7 1/2 inches and the overall height is 2 3/4 inches. It weighs just under two lbs. Each key is supplied in its own wooden crate, prominently marked "Made in Sweden." This version sells for $189.95.

The miniature Swedish Key is a specially miniaturized version of the Original Swedish, in highly polished brass on a teak base. It's shipped in a beautiful wooden box with green felt lining. This miniature key measures 5 1/4 inches long by 3 1/4 inches wide and is 2 1/2 inches high. It weighs 14 ounces, and is presentation quality. It's priced at $249.95.

For more information contact Morse Express at 303/752-3382, or order by calling 800/238-8205. Additional information is on the Morse Express web page at: www.MorseX.com.

## MFJ Super-Strength Goliath™ Tri-Magnet Mount

MFJ Products has introduced its new magnetic mount for antennas. It will


AMATEUR TELEVISION
Web site: http://www.hamtv.com

NEW 20 WATT 70 cm ATV TRANSCEIVER

*Now twice the power for just $30 more than the previous model. Get on ATV with this all in one box TC70-20 transceiver.*

PLUG-IN & PLAY ATV
**Only $529**
Includes 1 crystal and UPS surface shipping in cont. USA. Specify 439.25, 434.0, 427.25 or 426.25 MHz. 2nd crystal add $20. Shipped within 24 hrs of your call using Visa or MC.

**ATV** is as easy to get on as any voice mode. No other radios, computers or other boxes needed to get on this full motion video mode that s just like broadcast TV. Just plug in your video camera to transmit, TV set to receive the picture, 70cm antenna and 13.8 Vdc @5A power supply. That s it -you re *seeing* and talking to other hams live and in color!

**SHOW** the shack, home video tapes, zoom in and describe projects, show computer graphics and programs, repeat SSTV or even Space Shuttle Video and audio if you have a TVRO. Go portable or mobile, do public service events, RACES, AREC, CAP, even transmit the local radio club meetings to those hams that can t attend in person.

**DX** is100+ miles snow free line of sight using 14 dBd 420-450 MHz beams and TC70-20 s at both ends. For greater DX, the TC70-20 properly drives the Teletec DXP-U150 150 watt amp. Check the ARRL Repeater Directory for ATV repeaters and frequencies in your area, our web site links on page 3 or contact us for leads to other ATVers. See the ATV section in chapter 12, page 46 of the 1995-2000 ARRL Handbook.

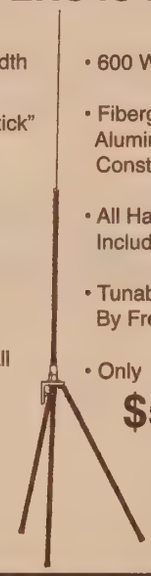
**HAMS: Call, Write or Email for our 10 page ATV Catalogue for more info - We have it all! Antennas, Amplifiers, Transmitters, Downconverters, Repeater modules, and more. We also have wired and tested boards for the builder, R/C, Rockets and Balloon ATVers.**

CALL (626) 447-4565 M-Th 8AM - 5.30 PM PST
P. C. ELECTRONICS Est 1965
2522 S. Paxson Lane Arcadia CA 91007
Web: www.hamtv.com
Email: tom@hamtv.com
24hr FAX: (626) 447-0489
Tom (W6ORG) & Mary Ann (WB6YSS)



TEN METERS IS BACK!

- 1 MHz Band Width
- Famous "Hamstick" Technology
- Mast Mount
- Accepts PL-259 Direct
- Only 10 Feet Tall
- CAT #-GP28
- 600 Watts
- Fiberglass And Aluminum Construction
- All Hardware Included
- Tunable For Near By Frequencies
- Only $54.95



Lakeview Company, Inc.
3620-9A Whitehall Rd., Anderson, SC 29626
864-226-6990 · FAX: 864-225-4565
E Mail: hamstick@hamstick.com
www.hamstick.com

MasterCard · Visa · Discover Card
Cash · Check · Money Order
ALL 100% MADE IN USA
Add $7.50 per order for S/H

hold any mobile VHF/UHF antenna and nearly all mobile HF antennas. It comes with 17 feet of heavy-duty coaxial cable. It has three of MFJ's five inch magnets with 1/4 inch by 1 1/4 inch wide solid aluminum crossbars. This new magnetic mount is available in two models; MFJ-338S with an SO-239 mount for VHF/UHF antennas, or the MFJ-338T with a 3/8 inch mount for HF mobile whips and stick antennas. They each retail for $49.95, and come with MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace a defective unit for one full year.

## Atomic wall clock

The MFJ 14 inch Atomic Wall Clock is the latest clock from MFJ products and will give you perfect time, all the time. This new clock receives WWVB radio signals from the National Institute of Standards and Technology at Ft. Collins, Colorado for absolute millisecond accuracy. This new clock features both 12 and 24 hour displays with 12 hour time on the inner dial and 1200-2400 time on the outer dial. This clock is also protected by the MFJ No Matter What™ warranty. The suggested retail price is $59.95.

To order either one of these MFJ products or locate your nearest dealer, call 800/647-1800, fax; 662/323-6551, e-mail; mfj@mfjenterprises.com, web site: www.mfjenterprises.com or write: MFJ Enterprises, Inc. P.O. Box 494, Mississippi State, MS 39762.

## Ameritron ATR-20 antenna tuner

The new ATR-20 is the little brother of the Ameritron ATR-30 True Legal Limit™ antenna tuner. It will handle full 1.2 kW SSB and 600 watts CW. It can safely handle the full SSB power of Ameritron's AL-811, AL-811H, AL-80B, ALS-500M, ALS-600 and other 1.2 kW SSB amplifiers. The ATR-20's roller inductor "T" matching network continously tunes all frequencies from 1.8 to 30 MHz. Both tuning capacitors have vernier reduction gear drives for smooth precise tuning.

The built-in meter is a 3-kilowatt true peak or average detecting directional power meter. Peak and average forward power, reflected power, and SWR are displayed on an illuminated cross-needle meter.

The ATR-20 has rear panel connectors for coaxial wire and balanced feedlines. A heavy duty, high voltage insulated, current-type balun allows use with balanced feedlines.

An internal six position antenna selector switch selects three coaxial line outputs, or a single wire line/balanced line output. Two coaxial line outputs, Antenna 1 and 2 are available in either "tuned" (with the matching network in line) or "direct" configurations. Coaxial output port Antenna 3 is direct only.

Properly tuned, the ATR-20 operates with load impedances from 25-800 Ohms. Matching range extends from 1 to 2500 Ohms (5 to 500 Ohms on 160 Meters) at reduced power.

The Ameritron ATR-20's suggested retail price is $459.00. To order, or for your nearest dealer, call 800/713-3550, fax 662/323-6551, e-mail ameritron@ameritron.com or see the web page: www.ameritron.com.

## Paddlette KP-4

Paddlette Company has added another new product to its line of miniature Morse accessories — the new KP-4 combination paddle key and iambic keyer. This is a major upgrade of the KP-3 incorporating a new case and custom PC board, the latest TiCK-4 keyer chip and an oversize, 4-year lithium cell. It's precision machined from a solid block of PVC and is completely self contained — including the battery and magnetic hold-down. It's very small with a footprint measuring 1 1/2 inches by 2 inches, and weighs less than 2 ounces.

There are 12 keyer options, including two 50-character messages and recalls. The menu includes speed adjust, tune, paddle select, sidetone on/off, straight key mode, iambic mode A/B, beacon, enter message #1, enter message #2, playback message #1, playback message #2 and iambic keyer mode.

The KP-4 retails for $84 ($94 with knee mount).

For Information contact the Paddlette Company P.O. Box 6036, Edmonds, WA 98026. Call 425/743-1429, or e-mail bham379627@aol.com.


# Visit Your Local Radio Store

**ARIZONA**

**Ham Radio Outlet**
1939 W. Dunlap Ave.
Phoenix, AZ 85021
(602) 242-3515
(800)444-9476

**CALIFORNIA**

**Ham Radio Outlet**
933 N. Euclid St.
Anaheim, CA 92801
(714) 533-7373
(800) 854-6046

**Ham Radio Outlet**
510 Lawrence Expwy.#102
Sunnyvale, CA 94086
(408) 736-9496
(800) 854-6046

**Ham Radio Outlet**
2210 Livingston St.
Oakland, CA 94606
(510) 534-5757
(800) 854-6046

**Ham Radio Outlet**
5375 Kearny Villa Rd.
San Diego, CA 92123
(619) 560-4900
(800) 854-6046

**Ham Radio Outlet**
2492 W. Victory Blvd.
Burbank, CA 91506
(818) 842-1786
(800) 854-6046

**The Radio Place**
5675A Power Inn Rd.
Sacramento, CA 95824
(916) 387-0730

**COLORADO**

**Ham Radio Outlet**
8400 E. Iliff Ave. #9
Denver, CO 80231
(303) 745-7373
(800) 444-9476

**DELAWARE**

**Ham Radio Outlet**
1509 N. Dupont Hwy.
New Castle, DE 19720
(302) 322-7092
(800) 644-4476

**FLORIDA**

**Eli's Amateur Radio**
2513 S.W. 9th Ave.
Fort Lauderdale, FL 33315
(954) 525-0103 • (800) 780-0103
FAX: (305) 944-3383
www.Eli'sAmateurRadio.com

**GEORGIA**

**Ham Radio Outlet**
6071 Buford Hwy.
Atlanta, GA 30340
(404) 263-0700
(800) 444-7927

**NEW HAMPSHIRE**

**Ham Radio Outlet**
224 N. Broadway
Salem, NH 03079
(603) 898-3750
(800) 444-0047

**NEW JERSEY**

**Advanced Specialties Inc.**
114 Essex Street
Lodi, NJ 07644
(201) VHF-2067

**OHIO**

**Universal Radio, Inc.**
6830 Americana Pkwy.
Reynoldsburg, OH 43068
(614) 866-4267 • (800) 431-3939

**OREGON**

**Ham Radio Outlet**
11705 S.W. Pacific Hwy.
Portland, OR 97223
(503) 598-0555 • (800) 854-6046

**Ham Radio Outlet**
14803 Build America Dr.
Woodbridge, VA 22191
(703) 643-1063 • (800) 444-4799




To subscribe call: 1-877-472-8643

# VE Exams

As a service to our readers, ***Worldradio*** presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is three months in advance. For example, if your VE group is scheduling an exam for December, please have the information to us by mid-September. ***Worldradio***, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams." List the location (City), any information examinees should have (advance registration, etc.) and the name and telephone number of a person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

**p/r pref**=pre-register preferred but w/i OK
**p/r**=pre-register only—no w/i
**w/i**=walk-in only
**w/i pref.**=w/i preferred to p/r

| State | City | Contact | Notes |
|---|---|---|---|
| **Alabama** | | | |
| 9/05/00 | Mobile | David, WA4AVC 334/649-5229 | p/r pref |
| 9/11/00 | Montgomery | Steve, K4NM 334/271-9603 | w/i |
| **Arizona** | | | |
| 9/09/00 | Tucson | Joe, K7OPX 520/886-7217 | w/i only |
| **California** | | | |
| Hotline | Carmichael | Info Hotline: 916/492-6115 | w/i |
| 9/28/00 | Colton | Harold, AB6RN 909/825-7136 | p/r pref. |
| 9/30/00 | Culver City | Scott, K6PYP 310/459-0337 | w/i |
| 9/02/00 | Culver City | Clive, AA6TZ 310/827-2538 | w/i pref. |
| 9/30/00 | Escondido | Harry, WA6YOO 760/743-4212 | p/r only |
| 9/11/00 | Fremont | Dennis, K6DF 408/255-9000 | w/i only |
| 9/02/00 | Hesperia | Jim, KW6V 619/244-1396 | w/i |
| 9/03/00 | Oakland | David, WB6NER 510/987-2867 | p/r pref |
| 9/16/00 | Redwood City | Al, WB6IMX 408/255-9000 | w/i only |
| 9/10/00 | Sacramento | Dick, N6DK 916/383-2113 | p/r only |
| 9/09/00 | San Pedro | Elvin, N6DYZ 310/325-2965 | p/r pref. |
| 9/09/00 | San Rafael | Steve, AJ6Y 415/898-8123 | w/i ok |
| 9/09/00 | Santa Barbara | Nancy, WR6V 805/967-4473 | p/r pref. |
| 9/16/00 | Santa Rosa | Hotline - Recording, 707/579-9608 | w/i ok |
| Hotline | Sebastopol | Recording, 707/579-9608 | |
| 9/16/00 | Stockton | Mark, W6DKI 209/465-7496 | w/i |
| 9/09/00 | Sunnyvale | John or Gordon 408/255-9000 | w/i only |
| **Colorado** | | | |
| call | All Colorado | Exam recording 303/360-7293 | |
| **Connecticut** | | | |
| 9/19/00 | Middletown | Paul, K1PL 860/635-1742 | p/r pref. |
| 9/09/00 | Newington | Dan, K3UFG 860/206-3379 | p/r pref. |
| **Florida** | | | |
| 9/14/00 | Ft. Myers | Leonard, KC4GOA 941/694-2505 | w/i |
| call | St. Pete | Mark, NP3R 727/528-0071 | w/i pref. |
| **Idaho** | | | |
| 9/09/00 | Boise | Fred, KB7GZU 208/375-2061 | w/i pref. |
| 9/27/00 | Grangeville | Larry, AB7GY 208/983-2163 | w/i pref. |
| **Illinois** | | | |
| Anytime! | Burr Ridge | Deni, W9DS 630/986-0061 | p/r |
| 9/18/00 | Libertyville | John, W9EM 847/223-3357 | p/r pref |
| 9/09/00 | Oak Forest | Dave, NF9N 708/226-1570 | p/r pref. |
| 9/16/00 | Rockford | Rusty, WB9QYV 815/968-0080 | w/i pref |
| **Indiana** | | | |
| 9/30/00 | Whitley Cntty | Henry, KB9CQO 219/244-7735 | w/i only |
| **Massachusetts** | | | |
| 9/16/00 | Melrose | Scott, WB1F 617/665-7654 | w/i ok |
| **Michigan** | | | |
| 9/11/00 | Howell | Greg, AA5GO 517/548-5893 | p/r pref. |
| 9/02,16/00 | Mt Clemens | Don, WA8IZV 810/294-1567 | p/r pref. |
| **Nebraska** | | | |
| 9/26/00 | Omaha | Brian, KMØY 402/533-2610 | w/i |
| **Nevada** | | | |
| 9/09/00 | Henderson | Tim, WA6TNW 702/872-5268 | p/r pref. |
| 9/16/00 | Minden | George, WW7E 702/265-4278 | w/i pref. |
| **New Jersey** | | | |
| 09/13/00 | Ft. Monmouth | Mike, KC2Q 732/774-1095 | w/i only |
| 9/16/00 | Pennington | Don, AA2F 609/737-1723 | p/r pref |
| **New York** | | | |
| 9/09/00 | Huntington | Stan, N2YKT 516/423-7132 | p/r pref. |
| 9/24/00 | Lindenhurst | Tom, KA2D 631/422-9594 | w/i |
| 9/03/00 | Yonkers | Emily, AC2V 914/237-5589 | w/i |
| 9/24/00 | N. Lindenhurst | Tom, KA2D 631/422-9594 | w/i |
| 9/09/00 | Old Westbury | Al, W2QZ 516/623-6449 | w/i |
| **North Carolina** | | | |
| tba | Brevard | Harrison, KO4RV 704/877-4757 | |
| **Ohio** | | | |
| 9/02/00 | Cincinnati | Herb, WA8PBW 513/891-7556 | w/i pref |
| 9/23/00 | Hubbard | James, W8JV 330/534-1394 | p/r pref. |
| 9/03/00 | Lagrange | Ola, WB8MOU 440/647-5116 | p/r pref. |
| 9/23/00 | Rockford | Robert, KA8IAF 419/795-5763 | p/r pref. |
| **Oregon** | | | |
| Call!! | Astoria | AA7OA, 503/338-3333 | p/r |
| 9/03/00 | Bend | Joe, K7SQ 541/385-3152 | p/r |
| Tuesdays | Bend | Bill, K7ZM 541/389-6258 | p/r only |
| 9/09/00 | Dallas | Robert, W7LOU, 503/623-1141 | p/r |
| 9/13/00 | Florence | Hal, N7HL 541/997-2323 | p/r pref. |
| 9/08/00 | Grants Pass | Bill, WX7U 541/476-2703 | p/r pref. |
| 9/05/00 | Hermiston | AB7HB 541/922-9076 | p/r pref |
| 9/02/00 | Lincoln City | Carl, K7EWG 541/994-3113 | p/r pref. |
| 9/13/00 | McMinnville | Mike, W7MJ 503/864-3291 | p/r |
| 9/16/00 | Newport | Phil, W7BFX 541/563-3866 | p/r |
| 9/21/00 | North Bend | Steve, KA7A 541/756-6697 | |
| 9/10/00 | Tigard | John, KSØF 503/626-7399 | p/r pref. |
| 9/30/00 | The Dalles | W7ACC 541/296-3466 | |
| **Pennsylvania** | | | |
| 9/10/00 | Butler | Gerald, W3DMB 724/282-6777 | p/r |
| 9/02/00 | Erie | Norma, W3CG 814/665-9124 | w/i only |
| 9/18/00 | Telford | Joe, W3PNL 215/723-6697 | p/r pref |
| **Puerto Rico** | | | |
| 9/30/00 | San Juan | Victor, KP4PQ 787/789-4998 | w/i |
| **Rhode Island** | | | |
| 9/14/00 | Providence | Judy, KC1RI 401/231-9156 | w/i pref. |
| **South Carolina** | | | |
| 9/20/00 | Goose Creek | Robert, KU4OX 843/761-7637 | w/i only |
| **Tennessee** | | | |
| 9/09/00 | Nashville | Murray, K4ANH 615/824-7216 | p/r pref. |
| **Texas** | | | |
| 9/16/00 | Austin | Jim, AB5EK 512/327-6184 | w/i |
| 9/30/00 | Brownsville | Bob, K5VC 210/542-7449 | w/i |
| 9/09/00 | Harlingen | Frank, KG5W 956/412-5820 | w/i |
| 9/23/00 | Houston | Bill, K8CSG 281/537-9240 | w/i ok |
| 912/00 | Houston | Harold, ND5F 713/464-9044 | p/r pref. |
| 9/09/00 | Webster | David Fanelli, kb5pgy@clarc.org | w/i pref. |
| **Virginia** | | | |
| 9/09/00 | Alexandria | John, WZ4A 703/971-3905 | w/i |
| 9/14/00 | Chesapeake | Pat, AF4FR 421-9598 | p/r |
| 9/30/00 | Virg. Bch | Melissa, KF4FBR 430-3848 | p/r |
| 9/23/00 | Virg. Bch | Ed, W4RTZ 804/898-8031 | p/r |
| **Wisconsin** | | | |
| 9/09/00 | Appleton | George, W9MDP 920/730-0967 | |

# Classified •Buy •Trade •Sell •Inform

MART deadline 15th of the month two months prior to issue date. Please include an address on all ads so prospective clients can contact you by mail, if they prefer. Commercial rate: 35¢/word, prepaid. Private rate: 20¢/word, prepaid. For credit card orders only: (VS, MC,AmEx) http://www.wr6wr.com/martplacead.html or Fax 916/457-7339 with card number, exp. date, name as it appears on card, and signature.

**WORLDRADIO ON CASSETTES** for the blind. For information, contact TOM CARTEN, K1PZU, 123-Y King's College, Wilkes-Barre, PA 18711-0801 or e-mail: *tfcarten@kings.edu.* F00

**FREE HAM GOSPEL TRACTS.** SASE, KW3A, 265 West Ave., Springfield, PA 19064. 199-201

**CHASSIS & CABINETS.** Catalog, SASE to K3IWK, 5120 Harmony Grove Rd., Dover, PA 17315; e-mail *k3iwk@flash.net*; *http://www.flash.net~k3iwk* 999-900

**EDITING A CLUB PAPER?** Need one for your club? Interested in Amateur Radio public relations? Need some help? Amateur Radio News Service would like to hear from you. For info write SUSAN BIGGS, 9708 Skillman #107, Dallas, TX 75243. F00

**RF TRANSISTORS & TUBES.** MRF247, MRF317, MRF454, MRF422, MRF151G, SAV7, SAV17, 2SC1944, 2SC1947, 2SC2904, 2SC2879, 2SC3133, Tubes: 3-500ZG, 572B, 4CX250B, 4-400C, resistors, capacitors & more. WESTGATE, 478 Westgate Drive, Edison, NJ 08820; 800/213-4563. 7-1200

**CERTIFICATE FOR PROVEN TWO-WAY RADIO CONTACTS** with amateurs in all 10 USA call areas. Award suitable to frame and proven achievements added on request. Send SASE to W6LS, 45527 3rd St. East, Lancaster, CA 93535-1802 to get data sheet. F00

**WANTED FOR MUSEUM:** Apple-1 and other pre-1980 micro-computers, also early-micro-computer journals, newsletters and advertising literature. KK4WW, P.O. Box 341, Floyd, VA 24091; 540/763-2321. 600-601

**FOR SALE:** *CQ/Ham Radio/QST/73* magazines and binders. SASE brings data sheet. W6DDB, 45527 Third Street East, Lancaster, CA 93535-1802. F00

**PERSONALIZED HOURLY HF SKY-WAVE PREDICTIONS** from your precise location: $20.00 (including P/H) SKYCOM 2.0 runs on all Windows OS and is Y2K compatible. Calculates optimum frequencies, path loss, and beam headings to over 400 worldwide locations which you can easily add to if so desired. ATTN: W4HET c/o DX-ENGINEERING SYSTEMS INC., P.O. Box 1934, Middleburg, VA 20118; *w4het@aol.com* F00

**ANTENNA BOOK—RADICAL DESIGNS:** F beams, Loop Yagi, 160M helical, short verticals, flat tops, VLF transmitters, VLF antennas, 2-meter beams. Send $12.95 to RAC, P.O. Box 37, Clarksville, AR 72830. 1099-1000

**ELECTRON TUBES:** Transmitting, receiving, military obsolete...all types. Large inventory. Fast delivery. DAILY ELECTRONICS, 10914 N.E. 39th St., Ste. B-6, Vancouver, WA 98682; 360/896-8856, 800/346-6667, fax 360/896-5476; e-mail: *daily@worldaccessnet.com*; website: *http://www.worldaccessnet.com/~daily/daily.html.* 900-901

**MARCO: MEDICAL AMATEUR RADIO COUNCIL,** operates daily and Sunday nets. Medically-oriented amateurs (physicians, dentists, veterinarians, nurses, therapists, etc.) invited to join. Grand Rounds: 14.308 MHz Sunday mornings at 10:00 a.m. Eastern time, and Web: *http://www.smbe.buffalo.edu/med/marco/*; e-mail: *k3fp@k3fp.com.* For information contact: DR. ROBIN STAEBLER, RR4 Box 2650, Belfast, ME 04915-9624. 999-900

**AUTO-CALL MAGAZINE,** official journal of the Foundation For Amateur Radio, a federation of over 80 clubs in the greater Baltimore/Washington DC area. Great coverage of FCC, ARRL, VEC, Public Service and club activities in the area. A must for those even passing through the area. For a sample copy write FOUNDATION FOR AMATEUR RADIO, P.O. Box 7612, Falls Church, VA 22046-7612. F00

**WANTED: OLD HEWLETT PACKARD** calculators and/or accessories, working or not. JOHN BLUE, KG8MM, 2436 Covert Rd., Burton, MI 48509; 810/744-4485; *jblue@tir.com* 4-900

**LET KIT BUILDERS** assemble your next QRP radio kit. Our service includes assembly, test and operation. Quotes available upon request. KIT BUILDERS, 1630 San Miguel Cyn Rd., Watsonville, CA 95076; 831/724-6335; fax 831/761-9193; e-mail: *wa6ouw@aol.com.* 7-1200

**RADIO REPAIR!** Reasonable charges. JIM RUPE, 998 Whipple, Grayland, WA 98547-0697; 360/267-4011; e-mail: *w7ddf@yahoo.com.* 300-301

**QSL CARDS:** Many styles, top quality. Order risk free. Plastic cardholders, T-shirts, personalized caps, mugs, shirts. Other Ham shack accessories. Free call, free samples. RUSPRINT, 12730 State Line Rd., Leawood, KS 66209; 800/962-5783; 913/491-6689; fax 913/491-3732; *http://www.rusprint.com* 7-1100

**FOREIGN AIRMAIL POSTAGE** for successful QSLing! Many countries, monthly bargains! Plus European nesting airmail envelopes, QSLs, eyeball cards, QSL albums and wall hangers! BILL PLUM, 12 Glenn Road, Flemington, NJ 08822-3322. (weekdays: 908/788-1020; fax: 908/782-2612.) 900-201

**200+ ELECTRONIC PROJECTS:** Secure WEB ordering @ *www.matcopublishing.com/plans1.htm* or send $1.00 (refundable) for catalog. MATCO-5C, P.O. Box 509, Roseville, MI 48066-0509. 300-301

**ASTRON POWER SUPPLY,** brand new w/warranty, RS-20M $99, RS-35M $145, RS-50M $209, RS-70M $249, SS-25M $119, SS-30M $135. Call for other models. AVENTRADE, 4518 Temple City Blvd., Temple City, CA 91780; 626/286-0118; *www.aventrade.com* 7-1200

**COUNTY HUNTERS:** Worked All Texas Award — beautiful certificate! TEMPLE AMATEUR RADIO CLUB, P.O. Box 616, Temple, TX 76503; *www.tarc.org* 500-501

**FREE!!!** Ham Radio and other CD-Roms & Software disk catalog. MOM 'N' POP'S SOFTWARE, P.O. Box 15003-HF, Springhill, FL 34604-0111; 352/688-9108; *momnpop@gate.net* 9-1200

**WANTED: HAM EQUIPMENT AND RELATED ITEMS.** Donate your excess gear or related items, new–old–in any condition–to the Radio Club of Junior High School 22, the Nation's only full time non-profit organization working since 1980 to get Ham Radio into schools around the country as a teaching tool using our EDUCOM – Education Thru Communication. Send your radio to school. Your donated material will be picked up anywhere or shipping arranged and this means a tax deduction to the full extent of the law for you as we are an IRS 501(c)(3) charity in our 19th year of service. It is always easier to donate and usually more financially rewarding, but most important your gift will mean a whole new world of educational opportunity for children nationwide. Radios you can write off, kids you can't. Make 2000 the year to help a child and yourself. Write, phone or fax the WB2JKJ "22 Crew" today: The RC of JHS 22, P.O. Box 1052, New York, NY 10002. 24 hours, call 516/674-4072; fax 516/674-9600; e-mail *crew@wb2jkj.org*; internet: *www.wb2jkj.org.* Join us on the WB2JKJ Classroom Net, 7.238 MHz 1100-1230 UTC daily and 21.395 MHz 1400-2000 UTC. 8-1000

**THE GREATER CINCINNATI ARA COMMUNICATIONS EXPO 2000 HAMFEST/ELECTRONIC SHOW IS SEPTEMBER 17:** Kolping Center north of Cincinnati, OH. Show open 8 a.m. through 4 p.m. Commercial exhibitors indoors, flea market, radio-controlled race car races, ARRL officials, good food, free parking, excellent prizes, hidden transmitter hunts, interesting forums, VE exams, ladies' program, great atmosphere. Admission: $5/S.A.S.E. by September 5; $8 at gate; 12 and under free. The Kolping Center, 10235 Mill Rd., five minutes south of exit 36 of Interstate 275 in northern Hamilton County. Talk-in: 146.88-. See *http://w3.one.net/~rkuns/expo2000/.* Indoor exhibit chairman Gary Osborne, W8XS, *osborne@fuse.nett*, 513/474-0287; Flea market/advance ticket chairman Tom Denham, K8VOE, *tdenham@eos.net*, 513/779-3951; VE exams Scott Henninger, W8GS, *w8gs@arrl.net*, 513/683-7373; General Chairman Jim Weaver, K8JE, *k8je@arrl.net* or 513/459-0142. 8-900



To subscribe call: 1-877-472-8643

**ALL YOUR RF DESIGN TOOLS** in one $49 Windows 98 program. Details at *www.qsl.net/km5kg*, or inquire by mail to RF DESIGN, 1908 Paris Ave., Plano, TX 75025. 8-1000

**FOR SALE:** Complete Oscar System, Yaesu 726R with 144 & 70 cm Modules, 435 Cushcraft Boom 144 Boomer, complete for $495 or will consider separate. W7PCR, P.O. Box 631, Portland, OR 97465-0631; fax 541/332-7707, phone 541/332-8053 or *w7pcr@harborside.com* 900

**FOR SALE OR TRADE:** 1946 Shure microphone 510C with data sheet and inspector certificate. Kenwood TS-440SAT no extra filters, manual and handmike MC42S with original packing. Would like to trade for IC-706. AA4IX, 843/873-9465; e-mail *aa4ix@juno.com* 900

**WANTED: ICOM 228H-28H** for repairs. FRANK CURTIS, RR1 Box 13, Virgil, SD 57379-9711. 900

**SELL OR TRADE:** MFJ Artificial Ground and MFJ-492 Memory keyer with manuals. Need Antenna Tuner and SWR Meter. LOU MOXEY, N3CZB, 200 Veterans Lane, Apt. 322, Doylestown, PA 18901; 215/340-9260. 900

**100 QSL CARDS,** $8.50. Special 1,000 eyeball – mini or business cards $18.00. We choose the stock and ink. Offer ends Dec. 2000. All orders postpaid. Payment with order. Send stamp for sample. ARTIST, P.O. Box 148652, Nashville, TN 37214. 900

**WANTED: COLLINS RADIOS,** parts estate sales. FRED, W6YM, 17890 Sharon Ct., Pine Grove, CA 95665; 209/304-1329 anytime or e-mail: *fhonnold@juno.com.* 4-900

**ANTENNA SCIENCE!** Why do antennas radiate electromagnetic waves? Learn for yourself from this enlightening paper by Max Research! Gain an understanding of the radiation mechanism of antennas! Written in a clear style for radio experimenters. $4.95...ppd. Order from MAX RESEARCH, P.O. Box 1306, East Northport, NY 11731. 9-1100

**PSK31, SSTV, VOICE KEYER INTERFACE** – The RIGblaster! The quick and easy way to join in the fun. See our display ad in this issue. WEST MOUNTAIN RADIO, 18 Sheehan Avenue, Norwalk, CT; website: *www.westmountainradio.com.* 900-901

## Vermont eliminates annual Ham plate fee

The state of Vermont has dropped the annual $10 surcharge to renew an Amateur Radio call sign license plate. Starting 01 July amateurs in Vermont now must pay only an initial $10 registration surcharge for an Amateur Radio call sign plate. — *WB1AJG, ARRL Letter*

# Letters to the Editor

*(continued from page 25.)*

### *30 years...*

What a great heading for your piece on page 25 of the July issue of ***Worldradio***.

It caused me to encounter an instant flashback in my memory bank of all the wonderful issues of ***Worldradio*** which I have held in my hands and read cover to cover as the sands of time have flowed too swiftly in the hour glass of time over the past three decades.

The past 30 years also coincide with my marriage 30 years ago on 20 June 1970 to my lovely wife, Sally, who, though not a Ham, is a great fan of Amateur Radio.

Armond, I must say that every so often there comes a time in life when something special occurs. Becoming a charter subscriber and lifetime subscriber to ***Worldradio*** ranks high amongst the shrewder decisions I have made.

You have surrounded yourself with a devoted, competent staff second to none. Their enthusiasm reflects brightly in every issue.

I have carefully retained every issue of ***Worldradio*** I have received over these decades. What enjoyment they give as I occasionally read an issue of days past when Ham radio enjoyed a different aura.

Thanks for bringing so much enjoyment to each of your readers, Armond. You are indeed a very special Ham and gentleman.

### *Editor's Log...*

In your editorial in the June issue concerning undesirable Hams, you suggested that they should get out of Ham radio and go collect stamps. In the August issue, a stamp collector responded, resenting the remark, and your response was that "Maybe they can go collect butterflies instead."

Well, you shot yourself in the foot again, for I am BOTH a Philatelist and a Lepidopterist, and also resent your statement!

I have joined many expeditions into the tropical regions of the world, such as New Guinea, Indonesia, Solomon Islands, Malaysia, etc. etc., in search of these living jewels of the instct world... and I only wish that I had both the room and the time to carry a Ham stations with me, combining BOTH hobbies, and experience the thrill of the DX pile-up trying to call me!!

I have been a subscriber to Worldradio for many years... It is the tops! Don't change a thing!

**Robert W. Schaumleffel, WA2IKS**
**Olean, NY**

*(Ed. — Well, there's another fine mess I've gotten myself into. How about the plastic liners from the screw caps on an inexpensive bottle of wine? No, somone probably will write in about wine.... How about worn-out brake shoes from railroad cars?)*

## ADVERTISERS' INDEX

59(9) DX Report, The — 32
Air & Water King, Inc./Bliss Z-Match — 10
Alinco, Inc. — 19
Am-Com — 49
Antique Radio Classified — 11
Anttron Antenna Company — 25
Array Solutions — 56
Battery-Tech — 47
Bilal Co. — 20
Buckmaster Publishing — 41
BullDog Iambic Key/ AmateurRadioProducts.com — 34
Burghardt Amateur Radio Center — 6
Caps Unlimited — 18
Command Technologies, Inc. — 16
Communication Products Amateur Radio Sales — 32
Communication Products Ltd. — 45
Communications Specialists — 38
COMTEK — 17
Courage Handi-Ham System — 12
Cubex Company, Inc. — 13
Cutting Edge Enterprises — 37
Davis RF Company — 21
DC Ace, Inc. — 25
Denver Amateur Radio Supply — 29
Dragonwyck Design, Inc. — 12
Electric Radio — 13
Embedded Research — 18
Emtech — 8
Engineering Systems, Inc — 54
EQF Software — 28
EZ Hang — 46
FMS Services — 60
G.G.T.E. — 25
Grundig Electronics — 23
H. Stewart Designs — 13, 18
Ham Radio Insurance Assoc., Inc. — 17
Ham Radio Outlet — 33
HamStuff by W7NN — 13
High Sierra Antennas — 16
IMRA — 54
J. Martin Systems — 50
Jade Products — 18
Kangaroo Tabor Software — 54
KK7TV Communications — 50
KO6YD Designs/Confluent Designs — 48
Lakeview — 57, 61
LDG Electronics — 2
Lentini Communications — 12
M&S Computer — 20
MFJ Enterprises, Inc. — 14, 15
Mr. NiCd's Batteries America — 26
Multi-Fax — 22
NiCd Lady, The — 36
Norm's Rotor Service — 13
Nott LTD — 60
Old Old Timers Club, The — 18
P.C. Electronics — 61
Paddlette Company — 52
Palomar Engineers — 24, 56
Patcomm Corporation — 55
PROLOG/Datamatrix — 30
QCWA — 7
QSLs by W4MPY — 34
R.F. Connection, The — 16
R.F. Parts — 31
Radio Engineers — 42
Ricom — 52
Sale Safe Co. — 18
Silver River, Inc. — 41
Smithdom Products LLC — 13
SSB Electronic USA — 46
T.G.M. Communications — 51
TEM Antennas — 59
Transel Technologies — 11
TX RX Systems, Inc. — 7
Unified Microsystems — 6
Universal Electronics — 34
Van Gorden Engineering — 7
Visit Your Local Radio Store — 62
W7FG Vintage Manuals — 24
W9INN Antennas — 18, 28
Webster Communications, Inc. — 59
West Mountain Radio — 44
Wilderness Radio — 53
Wireman, Inc., The — 13
Worldradio Books — 17, 27, 53, 66
Yaesu — 5

# WORLDRADIO

- **AERIALS II**, *by Kurt N. Sterba & Lil Paddle*
  Kurt N. Sterba, along with his soulmate, Lil Paddle, take on the world of antennas in order to make sure that "Truth, Justice, and the dB claims, shall be correct, and maximum power with lowest SWR shall be available for all" rings out across the Amateur Radio world. 80 pp. $10.00 + $2.00 s/h ($4.00 for non-US ZIP air delivery.) CA residents add $.78 tax.
- **AERIALS III**, *by Kurt N. Sterba & Lil Paddle*
  Once again the wise words of our advocates for truthfulness in dB claims illuminate our minds. This is Kurt and Lil's latest collection of antenna insights. 160 pp. $14.00 + $2.00 s/h ($4.00 for non-US ZIP air delivery.) CA residents add $1.09 tax.
- **NEAR VERTICAL INCIDENCE SKYWAVE COMMUNICATIONS — THEORY, TECHNIQUES AND VALIDATION,**
  *by LTC David M. Fielder & MAJ Edward Farmer, AA6ZM, P.E.*
  A compil[illegible] NVIS propagation and communicat[illegible] quency radio waves to "leap tall m[illegible] bus, dependable coverage of areas of operation spanning several hundred miles. 144 pp., over 100 illustrative figures & tables. $14.00 + $2.00 shipping and handling. ($4.00 for non-US ZIP air delivery.) CA residents add $1.09 tax.

**Temporarily out of stock**

- **SIX METERS, A GUIDE TO THE MAGIC BAND, REVISED**, *by Ken Neubeck, WB2AMU*
  A labor of love by the author, the book provides comprehensive information on Six Meter equipment and modes. A little history of the Golden Age of Six Meters is provided along with some explanations for the causes of various forms of propagation. 96 pp. $12.00 + $2.00 shipping and handling. ($4.00 for non-US ZIP air delivery.) CA residents add $.93 tax.
- **THE LITTLE PISTOL'S GUIDE TO HF PROPAGATION,**
  *by Robert R. Brown, NM7M*
  Explains the intricacies of HF propagation so that average/low-power operators can more efficiently take advantage of ionospheric conditions to make those rare DX contacts. 128 pp., 85 figures. $10.00 + $2.00 shipping and handling. ($4.00 for non-US ZIP air delivery.) CA residents add $.78 tax.
- **EVERYTHING YOU FORGOT TO ASK ABOUT HF MOBILEERING,**
  *by Don Johnson, W6AAQ*
  This long-anticipated update on mobile antennas is packed with tips garnered from amateurs all over the country who have found a better way to adapt their mobile antenna installation to their specific needs. 64 pp., many photos and figures. $8.00 + $2.00 s/h. ($4.00 for non-US Zip air delivery.) CA residents add $.62 tax.
- **INSIDE AMATEUR RADIO**, *by Lenore Jensen, W6NAZ*
  Interviews with the people who make Amateur Radio the engaging hobby that it is. A collection of short stories and anecdotes detailing courageous rescues, hilarious situations and heart-warming tales, as told by the hams who made them happen, through the "pen" of someone who truly knew what it was about "inside Amateur Radio." A must for every ham shack coffee table. 93 pp. $9.00 + $2.00 shipping and handling. ($4.00 for non-US ZIP air delivery.) CA residents add $.70 tax.
- **WHEN THE BIG ONE HITS**, *A Survival Guide for Amateur Radio Operators, by Jerry Boyd, KG6LF & Jay Boyd, KN6BP*
  Tells Amateur Radio operators what to do to prepare for survival, safety of families and loved ones, and perform disaster communications duties efficiently in the face of disaster. 56 pp. $7.50 + $2.00 s/h. ($4.00 for non-US ZIP air delivery.) CA residents add $.58 tax.
- **BEST OF BEASLEY**, *by Robert Beasley, K6BJH*
  "Oh, to see ourselves as others see us..." A wacky view of Amateur Radio through the eyes of a very clever cartoonist. Great gift for a fellow amateur. 112 pp. $8.00 + $2.00 shipping and handling. ($4.00 for non-US ZIP air delivery.) CA residents add $.62 tax.



To subscribe call: 1-877-472-8643

# BOOKS, etc.

•What does a well dressed Amateur Radio Operator wear when drinking out of a ***WORLDRADIO*** mug? Why, this classy ***WORLDRADIO*** cap, of course! Durable navy blue poplin with light blue imprint. $7.00+$2.00 s/h. CA residents add $.54 tax.

Guaranteed to make your beverage taste better! Cobalt blue 11-oz. ceramic mug with light blue imprint. $7.00+$4.00 s/h. CA residents add $.54 tax.

• The ***Worldradio*** 1999 CD-ROM Featuring the Aerials Trilogy, plus the whole 1999 year of ***Worldradio*** on archive for your viewing pleasure. $29.99+$2 s/h. CA residents add $2.32 tax.

## Would you like speedy, personal attention?
## Call WORLDRADIO — 916/457-3655

••••••••••••••••••Send your order to••••••••••••••••••

**WORLDRADIO BOOKS • P .O. Box 189490 • Sacramento, CA 95818**

Send me the following items:

| QTY | TITLE | PRICE | TOTAL |
|---|---|---|---|
| ____ | AERIALS II | $10.00 | _____ |
| ____ | AERIALS III | $14.00 | _____ |
| ____ | BIG ONE... | $ 7.50 | _____ |
| ____ | SIX METERS... | $12.00 | _____ |
| ____ | BEST OF BEASLEY | $ 8.00 | _____ |
| ____ | INSIDE AMATEUR RADIO | $ 9.00 | _____ |
| ____ | LITTLE PISTOL | $10.00 | _____ |
| ____ | NVIS COMM. | $14.00 | _____ |
| ____ | EVERYTHING YOU FORGOT TO ASK... | $ 8.00 | _____ |
| ____ | ***WORLDRADIO*** MUGS | $ 7.00 | _____ |
| ____ | ***WORLDRADIO*** CAPS | $ 7.00 | _____ |
| ____ | ***WORLDRADIO*** CD | $29.99 | _____ |

**SUBTOTAL** _____

CA residents add 7.75% sales tax _____

S&H charges: $2.00 for the first book to an address, & $1.00/book for additional books.

$4.00 mug, $2.00 cap, $2.00 CD. _____

**TOTAL PRICE** _____

❒ Check or money order enclosed for $_____

❒ Charge my credit card:
❒ VISA ❒ MasterCard ❒ American Express

Account Number Expiration Date

Signature

Name & call (please print)

Address

City/State/ZIP

# An icon is gone

Lew McCoy, W1ICP, died of a brain tumor 31 July. He was 84. "Mac" was a witty raconteur who entertained generations of amateurs with his talks at Amateur Radio conventions. His high humor and interesting opinions on many matters always guaranteed a full house at his seminars.

Licensed in 1946, Lew was employed at the ARRL from 1949 to 1978. As the first Novice Editor for *QST*, Lew wrote hundreds of articles for the amateur who (at that time) was crystal-controlled as to frequency, could run only 75 watts, and most likely had built his one- or two-tube transmitter with a soldering iron.

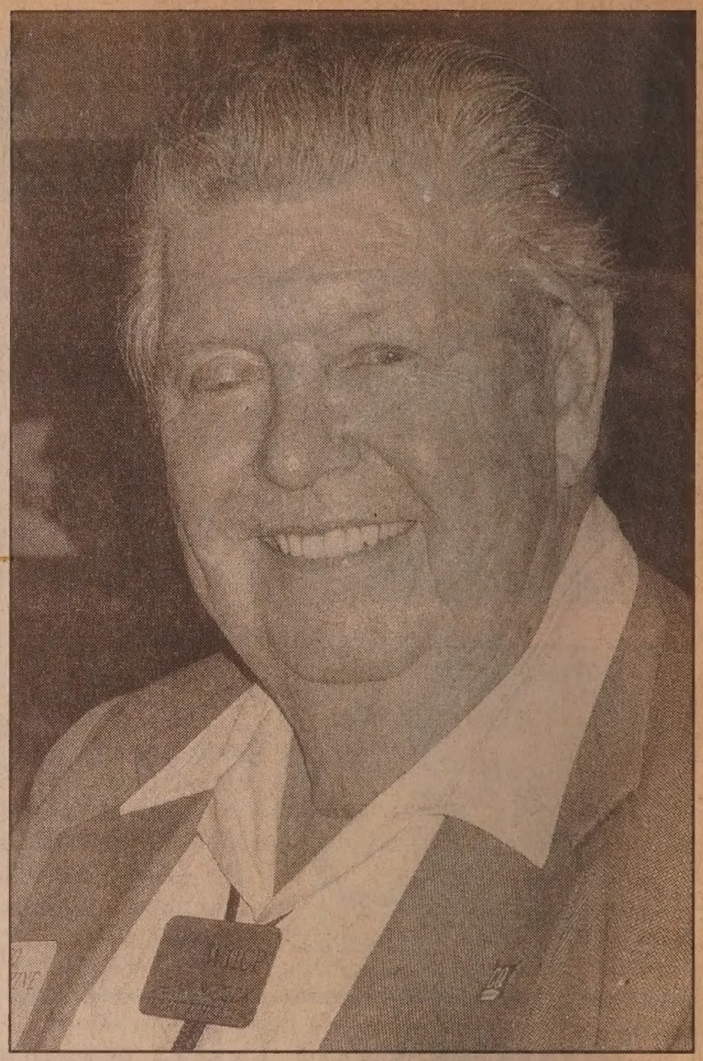
After nearly 30 years at the ARRL, McCoy retired and then was a contributing editor for *CQ*. While at *CQ* he wrote a popular book on antennas. He was an early advocate of the cubical quad antenna, an invention of Clarence Moore while at short-wave station HCJB. W1ICP became an expert in the fight against TVI, which was a real challenge in the early days of television due to the poorly built sets. Another of his many facets was an expertise in antenna tuners for which he created original circuits.

McCoy was generous with his time and talent and also wrote for other journals. Recently he was doing a highly entertaining series of Ham nostalgia for the magazine *Electric Radio* which is devoted to the earlier tube-type equipment. He wrote the foreword to AERIALS II by Kurt N. Sterba. Lew also served as president of the Quarter Century Wireless Association from 1994 to 1996.

His outstanding ability to communicate with an audience may have come from his early days as a performing magician.

Among the survivors is his daughter, Marsha Asserts, W1HAQ.

Among the mourners are many thousands who grew as amateurs and whose knowledge was increased by a prolific writer and devoted amateur.




Worldradio

**Periodicals Postage Paid**
**Sacramento, CA**
**and additional**
**mailing offices**

(USPS 947000)
P.O. Box 189490
Sacramento, CA 95818-9490

POSTMASTER: Send this page (NOT A COPY — THAT'S WASTEFUL!) with changes of address to above. (Please include mailing label intact. Please do not obliterate ANY information on the mailing label.)



**********5-DIGIT 98290
WRL 01-0064740 12/2000 I
CARROLL CLARK W7IML
522 AVENUE H
SNOHOMISH WA 98290-2315